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CENSUS OF INDIA 1951

VOLUME VI

WEST BENGAL, SIKKIM & CHANDERNAGORE

PART IA—REPORT

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THE CENSUS PUBLICATIONS

The Census Publications for West Bengal, Sikkim and Chandernagore will consist of the following volumes. All volumes will be of uniform size, demy quarto 8¾×11¼":

Part IA—General Report by A. Mitra (the present volume).

Part IB—Vital Statistics, West Bengal, 1941—50 by A. Mitra and P. G. Choudhury, containing a Preface, 60 tables, and several appendices. 75 pages. Published in December 1952.

Part IC—General Report by A. Mitra, containing the Subsidiary Tables of 1951 and the sixth chapter of the Report and a note on a Fertility Inquiry conducted in 1950. Several Appendices. A report on the natural resources, trades and industries of the State with two bibliographies by Chanchal Kumar Chatterjee and Kamal Majumdar. About 450 pages. Ready in May 1953.

Part II—Union and State Census Tables of West Bengal, Sikkim and Chandernagore by A. Mitra. 540 pages. Published in February 1953.

Parts III & IV—Report with Census Tables on Calcutta City and Calcutta Industrial area by A. Mitra. About 250 pages. Ready in May 1953.

Part V—Administrative Report of the Census Operations of West Bengal, Sikkim, Chandernagore and Calcutta City: Enumeration: by A. Mitra. 96 pages. Published in November 1952.

The Castes and Tribes of West Bengal—edited by A. Mitra, containing 1951 tables of Scheduled Castes and Scheduled Tribes in West Bengal. A monograph on the Origin of Caste by Sailendranath Sengupta, a monograph on several artisan castes and tribes by Sudhangsu Kumar Roy; articles by Professor Kshitishprasad Chattopadhyay, and Sri Sailendranath Sengupta on the racial composition of Bengalees, with anthropometric tables; an article on Dharmapuja by Sri Asutosh Bhattacharyya. Selections from old authorities like Sherring, Dalton, Risley, Gait and O'Malley. An introduction. 18 plates. About 400 pages. Published in May 1953.

An Account of Land Management in West Bengal, 1872-1952 by A. Mitra, containing extracts, accounts and statistics over 80-year period and agricultural statistics compiled at the Census of 1951, with an introduction. About 250 pages. Ready in June 1953.

Fairs and Festivals in West Bengal by A. Mitra, containing an account of fairs and festivals classified by villages, unions, thanas and districts. With a foreward and extracts from the laws on the regulation of fairs and festivals. About 45 pages. Published in April 1953.

District Handbooks for each West Bengal District by A. Mitra. Each volume contains an Introductory essay, several important appendices, and about 82 tables, together with a list of ancient monuments in each district. Contains also a village directory where the J. L. No. of every village, its name, area, total population, number of houses, number of literates, and the population of the village classified into eight livelihood classes are tabulated. The Handbooks for Hooghly and Burdwan were published in May 1952 and March 1953 respectively. The Handbooks for Malda Howrah, West Dinajpur and Murshidabad are in the Press. The whole series is expected to be completed by 1954. Each volume will contain about 300 pages.

A catalogue of the better known ancient monuments of West Bengal by A. Mitra. Will contain brief descriptions of extant ancient monuments in each district of the State, dating up to 1800, with exact location and present state. With many plates. About 600 pages.

FEW PEOPLE OUTSIDE realise that census is an administrative operation of great dimensions and, in addition, it is a scientific process. Indian census, in particular, covers the largest population in the world and it is also one of the most economical administrative operations. Census as an institution goes back to the remote past, but it is no longer a mere counting of heads; it involves extraction of information which plays a vital role in the determination of many of our administrative policies. The facts elicited during the course of this operation yield valuable scientific data of sociological importance. In many matters it provides a useful guide for the effectiveness or otherwise of our economic policies. The theory of population is in itself an interesting part of economics. The census helps us to test and adapt that theory to facts. There is also another significant advantage which I should like to stress. Census affords an opportunity for Government to reach every home throughout the length and breadth of this country; little hamlets in far off jungles or perched on mountain tops alike feel with prosperous and easily accessible townships the beat and throb of a pulsating administration. It is also one of the greatest achievements of honorary endeavour; for instance, the process of enumeration would involve visits by over a million honorary enumerators to about 64 million homes inhabiting 350 million citizens.

The forthcoming census is the first census of a Free Republican India. It is also the first census of partitioned India. The enumerators will, therefore, visit homes of India's millions of citizens as representatives of a new institution and we shall have to adapt ourselves to a new basis of comparison and tabulation. The Constitution, for the first time, recognises the important role of census. It has been specifically provided that the data collected at successive censuses should form the basis for the delimitation of territorial constituencies. There is also another departure from past practice. Formerly there used to be elaborate caste tables which were required in India partly to satisfy the theory that it was a casteridden country and partly to meet the needs of administrative measures dependent on caste divisions. In the forthcoming census this will no longer be a prominent feature and we can devote our energies and attention to the collection and formulation of basic economic data relating to the means of livelihood of the people and other economic activities of the individual and the State.

Hitherto, the census used to be looked upon as a decennial operation for which haphazard temporary arrangements used to be made. I have already stated that there is now a permanent Census Act on the Statute Book and Government have already a permanent office of the Registrar General and Census Commissioner. It is our intention through this unified organisation to effect continuous improvement over the whole field of population data including the census and vital statistics and to conduct experiments in sampling which would reduce not only the elaboration of these operations but also the cost. I hope, in your deliberations, you will take note of the changes which have now taken place in the character of the census operations and you will go back to your States fully familiar with the trends of ideas here in order to implement them on the actual field. I wish your deliberations all success.

From the speech of SARDAR VALLABHBHAI PATEL, *Deputy Prime Minister of India, inaugurating the first conference of Census Superintendents in February 1950.*

THE SCOPE AND PURPOSE OF THIS REPORT

AT THE OUTSET it requires to be stated that the statements made and conclusions drawn in this Report are wholly the responsibility of the author alone in his personal capacity and do not necessarily represent the views of Government.

The following are the Registrar General's instructions on the scope and purpose of the Report.

I propose to define and limit the scope and purpose of the 1951 Census Report to the provision of the following, viz:—

(i) a narrative review of data relating to the numbers, life and livelihood of the people; (such data will be deemed to consist of (a) replies to questions 1, 3, 4, 5, 9, 10, 11 and 14 at the 1951 Census; (b) corresponding data of past censuses; and (c) authoritative non-census data, if any, which may be readily available and relatable to such census data)

(ii) narrative exposition of significant changes from census to census or between different territorial units brought to light by the foregoing review—(For purposes of such exposition, the natural divisions and districts will be the territorial units in the State reports; and the States and natural divisions will be the territorial units in the All-India Report) and

(iii) a narrative explanation of the significant changes referred to above, in so far as such explanation can be readily furnished on the basis of local knowledge and experience of the writers of the Reports, or of District Officers and heads of departments who may be consulted by them.

[NOTE.—This limitation involves the consequence that the " Reports " will exclude detailed treatment of the data relating to a number of subjects, *e.g.*, " Displaced Persons ", " Backward Classes ", " Language ", " Religion ", " Literary and Education ", etc. Where the Ministries concerned so desire, a separate series of publications called " 1951 Census Brochures " will be prepared—one for each subject.]

Six Chapters.—Apart from an introduction and (if necessary) some appendices, the subject matter of the 1951 Census Report will be arranged in six chapters as below:—

Chapter I—General Population
Chapter II—Rural Population
Chapter III—Urban Population
Chapter IV—Agricultural Classes
Chapter V—Non-Agricultural Classes
Chapter VI—Families, Sexes and Principal Age Groups

Sections and Subsidiary Tables.—Each chapter will be divided into a number of sections, and at the end of each chapter there will be a set of Subsidiary Tables which will form the statistical basis of the narrative review and exposition contained in the Chapter.

Comments on first sections.—The first section of each chapter is headed " Preliminary Remarks ". This section should contain explanatory comments on all the statistical data reviewed in the chapter, to the extent necessary for proper understanding of their meaning, degree of reliability and comparability with corresponding data of prior censuses. Further, comments of an introductory character relevant to the subject matter of the whole chapter, and not conveniently assigned to any subsequent section should be indicated in this section.

Comments on other sections (*except the last*).—The subject matter of each section is indicated by the section-heading as well as form-heading of related Subsidiary Tables. The figures in each of the relevant Subsidiary Tables should be reviewed, both horizontally and vertically. Significant similarities and dissimilarities will emerge from this review.

All features which are apparently significant should be referred to in the narrative exposition. It is not necessary that detailed research should be underatken in order to explain all of them. But as much explanation as possible should be furnished of significant trends regarding growth of population. Every effort should be made to analyse such trends into two parts *viz.*, the part accountable by movement of population and the part accountable by natural increase (excess of births over deaths); and the fullest possible information (based on local knowledge of movement of population into tracts presenting unusually rapid growth and out of tracts presenting unusually slow growth) should be obtained from District Officers and made use of in appropriate sections. Whenever any feature of apparent significance is commented upon, the corresponding chapter of the 1931 Census Report should be consulted for prior comments, if any, on the same feature.

Comments on last Sections.—The last section of each chapter is headed " Concluding Remarks ". It is intended to contain a very concise summary of the main conclusions reached in earlier sections about significant features brought to light by the review of statistical data, and their explanation, if any.

Further, the last sections of all the six chapters should be organically linked to one another successively in the following manner. The last section of the first chapter should contain, on the basis of all the material contained in that chapter, a *preliminary forecast of the probable growth of general population during the decade (1951-60)—in each of the natural divisions of the territory dealt with in the Report.*

The last sections of the second and third chapters should contain a similar preliminary forecast in respect of the rural population and urban population separately.

The last section of the fourth chapter should draw attention to the extent to which *increase of livelihood derived from cultivation has (in the past) outstripped, kept pace with, or fallen short of the increase of population in each of the natural divisions of the area dealt with; and indicate the likely prospect for the decade (1951-60).*

The last section of the fifth chapter should draw attention to the extent to which *increase of employment in industries and services has (in the past) outstripped, kept pace with, or fallen short of the increase of population.* Considering this result together with that recorded at the end of the fourth chapter, *has the aggregate livelihood of the people kept pace with the growth of population? This should be indicated as also the prospect for the decade (1951-60).*

The last section of the sixth chapter should end with a statement of opinion on whether the facts relating to family size and component, Sex ratios and Age structure afford *any indication regarding probable trend of population changes beyond the decade (1951-60).*]

General Comments.—It does not matter if available material does not permit of analysis sufficiently definite for reaching conclusions on the lines described above. It does not also matter if the time available to reporting officers is insufficient for carrying out even such analysis as may be permitted by the material. What is essential is that the prescribed Subsidiary Tables should be correctly prepared and the reporting officers should apply their mind to these tables and attempt a review on the lines indicated. It is unnecessary to spend time on the perfection of phrase and style. The quality of the Report will depend on its lucidity, precision and (consistently with these requirements) conciseness. The reports thus prepared will be of value mainly as the starting point of more detailed studies, (to be undertaken subsequently) of the *inter-relationship of population changes and economic changes* in the country as a whole, as well as in the different States and natural divisions of the country. If this purpose is served, Reporting Officers will have discharged their duty.

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(*Prepared by* SRI BIMAL KUMAR MITRA AND SRI SACHINDRANATH MUKHERJEE)

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Map of a portion of Eastern India containing West Bengal, Sikkim and Chandernagore . . . . end of book

PREFACE

The ninth census of West Bengal was taken between the 9th February and 3rd March of 1951 with sunrise of the 1st March as the Reference Day.

Before proceeding to an account of how the census was taken and tabulated, it may be interesting to note how the Census Superintendent's area of operation has changed since 1872. The following statement provides the outline.

Year	Provinces	Number of Administrative Divisions	Area in square miles	No. of towns & villages	Persons	Males	Females
1872	West Bengal, East Bengal, Bihar, Orissa, Chhota Nagpur, Assam.	11	248,231	201,096	66,856,859	*33,398,605	*33,274,074
1881	West Bengal, East Bengal, Bihar, Orissa, Chhota Nagpur, Feudatory States of Bengal, Bihar and Orissa.	13	187,222	264,765	69,536,861	34,625,591	34,911,270
1891	West Bengal, East Bengal, Bihar, Orissa, Chhota Nagpur, Tributary States, Santal Parganas.	13	187,336	244,472	74,643,366	37,236,485	37,406,881
1901	West Bengal, East Bengal, Bihar, Orissa, Chhota Nagpur, Feudatory States of Bengal, Bihar and Orissa, Tippera, Sikkim.	14	189,837	222,855	78,493,410	39,278,186	39,215,224
1911	West Bengal, East Bengal, Cooch Behar, Tippera, Sikkim.	8	84,092	123,360	46,305,642	23,803,593	22,502,049
1921	Same as 1911 . . .	8	82,277	89,660	47,592,462	24,628,365	22,964,097
1931	Same as 1911 . . .	8	82,955	91,343	51,087,338	26,557,860	24,529,478
1941	Same as 1911 . . .	8	82,876	90,156	61,460,377	32,360,401	29,099,976
1951	West Bengal, Chandernagore, Sikkim.	4	33,524	35,278	24,997,942	13,445,871	11,552,071

* Excludes 148,918 Garos and Nagas of Assam and 35,262 persons in respect of Hill Tippera.

The reduced area of operation in 1881 contributed to improvement in the census organisation, and the better control thus secured was turned to good use in 1891 and 1901. A further reduction in area in 1911 must have brought about a greater measure of control and supervision maintained and improved up to 1941. Census Superintendents were henceforth enabled to pay at least one visit to all district headquarters and some subdivisional headquarters and not obliged to leave their work entirely to that overworked incumbent, the District Magistrate. In 1950-51 the Superintendent was able to pay two visits to each district headquarters before the enumeration was undertaken in February 1951. The census in India is pre-eminently an administrative undertaking, and like all other work of this nature, its success and accuracy depend largely on the amount of personal and local supervision a regional superintendent is able to bestow on the ground staff. Thus although the area has progressively shrunk from decade to decade reducing his area of survey, the smaller area has given the Superintendent at least the satisfaction of closer supervision, more necessary now than ever before when District Magistrates can no longer be expected to trouble themselves with the minutiae of this work, for even as long ago as in 1901 Gait had observed that "fully occupied, as they already were, with their ordinary duties, the census must have been a heavy additional burden, and cannot well have been regarded otherwise than as an unmitigated nuisance!"

The arrangements for the census followed generally the lines laid down in 1941 but made important departures. Three important innovations had been introduced in 1941. Instead of a synchronous census on one night, the taking of the census was spread over a full week, followed by a revisionary period of three days, with the night of the seventh day as the reference night against which all entries were to be checked for the final record. Secondly, the family schedule for recording census information was abandoned in favour of the individual slip, which, apart from dispensing with slip copying in the tabulation stage, brought about almost a revolution in procedure. The enumerator was now fairly and squarely saddled with the responsibility of producing a correct record himself, the literate head of a household being no longer expected to fill in the schedule for his own family. Attention settled finally on the individual and not the family, and the mere act of making out a slip for every person probably ensured a greater measure of accuracy, the enumerator no longer needing to remain content with the household as a unit. Finally, the enumerator was required to fill in enumeration slips with the use of contractions, numerals and symbols which were expected to lessen his burden and facilitate tabulation. In 1951 all these innovations were retained and improved upon. The individual slip and the use of contractions, numerals and symbols came to stay, while the period of enumeration was increased to twentythree days: twenty days from the 9th February to midnight of the 28th being devoted to the count; the sunrise of the 1st of March being regarded as the reference date against which all entries and omissions were to be finally checked; to be followed by three days, from the 1st to the 3rd March, for the revisionary round. Along with the recording of the count on slips, the National Register of Citizens was required to be filled up by every enumerator in respect of his area. This National Register was devised as a register or schedule for the village; and instead of the family schedule used up to 1931 the enumerator was to transcribe a schedule for the village, entering the households in the order in which they were numbered, and under each household all its inmates. For each inmate almost all the items of information recorded on the census slip were to be copied, and a careful tally made for births, deaths, arrivals and final tallies before the Register was handed over to Authority on the 4th of March. The enumerator was thus expected to perform two separate and distinct functions: the function of slip copying which, up to 1931, had been done by paid employees in central tabulation offices after the count had been taken; and the making of the village schedules, which were slightly more complicated than the family schedules and more onerous because the enumerator was expected to do all of it himself without the head of the household doing part of the writing for him.

The operations were initiated in December 1949, before the Superintendent joined in January 1950, by circulars of a general nature from the Census Commissioner. The Indian Census Act of 1948 (XXXVII of 1948) created for the first time a permanent Census Department at the Centre and provided the legal basis. Preliminary arrangements were initiated as early as the 28th March, 1950, with a summary of census operations and orders under which a "census mauza register" was prepared to account for the whole area in each district and a preliminary estimate was made of the number of houses in each mauza with names of the individuals likely to constitute a satisfactory census agency. The first step was thus to obtain an accurate and up-to-date record of all inhabited and uninhabited areas, *i.e.*, to prepare a register in which every village was entered with suitable remarks. This was to ensure first, that no village or hamlet was overlooked or entered more than once; secondly, that no house in a village or hamlet escaped enumeration; and thirdly, which came later, that every person living in a house was accounted for.

This is not altogether an easy task as it involves collation and correction of one inch, and, in not a few cases, of 16″=1 mile maps of the entire State to account for all notified changes of jurisdiction, uninhabited mauzas, and water areas. The mauza register having been compiled for all rural and urban areas, and all differences over area and jurisdiction having been reconciled, each district was parcelled out into census divisions. Up to 1941 the primary census unit was the enumerator's block, or a group of about 40 houses for which an enumerator was responsible. But the main plank in the tabulation programme of 1951 was the preparation of a primary census abstract for every village or mauza, or an account of the population of every ultimate geographical unit in terms of its number of houses, households, literates, males and females, divided into General, Sample and Displaced Persons, each category in its turn classified into eight main census livelihood classes. The preparation of a Village Directory, or a full occupational account of the population of every mauza, was a unique and quite the most important feature of this census and it was necessary to provide for its compilation from the very beginning. It was therefore imperative to keep the mauza as the ultimate unit which was thus identified with the enumerator's block. An enumerator's area was enlarged, in the expectation that he would be paid an honorarium for his labours, and except in large and populous mauzas, it became conterminous with the mauza. When a large and populous mauza had to be parcelled out to more than one enumerator, each portion was called a sub-block, the idea being that all returns were to be submitted for the mauza as a whole by combining the sub-blocks. The mauza was thus held together and the enumerator's area enlarged to an average of 146 census houses. The blocks or mauzas were grouped together by circles, or fractions of unions, each of which was under a supervisor, the average circle in the State containing about 4·2 inhabited mauzas and 635·6 houses. The circles again were grouped together by charges, which, as a rule, correspond to self-governing unions, and were under superintendents. The enumerator was ordinarily the village primary school teacher, the supervisor a member of the Union Board, and the superintendent, the President or Vice-President of the Union Board. The Charge Superintendents, who were responsible for the operations throughout each charge, were themselves subordinate to the Circle Officers, who were gazetted officers of the Government in charge of several police stations each, and the latter to the Subdivisional Officers and to the District Census Officers, who were appointed for each district.

The actual enumeration was conducted by an improvised agency of superintendents, supervisors, and enumerators, all unpaid, except for the rate of Rs. 2 per one hundred persons counted given to enumerators in outlying districts and of Rs. 3-2-0 per one hundred persons counted in Calcutta (enumerators from the ranks of the Calcutta Police declining to accept it out of sentiments of national service, and the Municipal authorities of Howrah paying the difference of Rs. 3-2-0, the Calcutta rate, and Rs. 2 allowed by the Government). Enumeration was therefore in the main honorary and in West Bengal, Chandernagore and Sikkim as many as 37,004 enumerators, 8,463 circle supervisors and 2,458 charge superintendents were employed with a liberal reserve for each category. In many localities, especially in Birbhum, Bankura, Malda, West Dinajpur, Jalpaiguri and Sikkim it was no easy matter to obtain a sufficient supply of literate and intelligent enumerators, and a long training was necessary before they could understand the duties required of them. Even where suitable men were available, their natural reluctance to serve without pay had to be overcome, and the lesson brought home to them that the census was conducted by, through, and for the people, and that, perhaps for the first time in their lives, they would be actively discharging a public duty. It was fortunate that the Press and the general popular mood were helpful and sympathetic, and the name National Register of Citizens caught the fancy of the general public. The appreciation that a sober, unbiassed census was at the root of all public plans and aspirations generated a friendly disposition in its favour, absent in 1941 and 1931, and facilitated the operations.

The vast majority of the population of the State does not live in towns, and in rural areas the type of village generally found in other parts of India hardly exists. Still less does the aspect of the countryside resemble that met with in Europe. Instead of orderly rows of fairly substantial houses ranged along some well laid thoroughfare, one finds straggling homesteads over the whole countryside, each consisting of mud or matwalled huts ranged round a courtyard and buried under a thick growth of shady trees. At first glance it would seem fairly impossible to account for every homestead, much less to complete a census of all the inhabitants. The task is, however, not as impossible as it appears, and the solution of the difficulty lies in the employment of local men, to whom the task of dealing with circumscribed areas, familiar to them from their childhood, is a problem unlike that to a stranger.

The first work of the supervisors and enumerators was to number every house or part of a house, that was inhabited or likely to be inhabited by a family, using tar or some other suitable material for marking it, and to write up for each mauza complete lists of houses with descriptions of their structure and use and the number of persons in each. Each mauza had to have one serial throughout its boundary as a safeguard against being mixed up with the next. A house was defined as the residence of a commensal family but the application of this definition gave rise to numerous knotty questions, especially in Calcutta and surrounding areas and in those settlements where Displaced Persons from Pakistan had foregathered. How, for instance, was an enumerator to mark a house which contained nine living rooms, two kitchens, one bathhouse, and eight families, two of whom possessed two living rooms each, three had one living room each, and four shared the remaining two living rooms? Again, how were the numbers to be affixed ? The Toto huts in the Bhutan border of Jalpaiguri, for instance, are mere bamboo shacks on raised platforms, and no number could be painted on them. So, the number had to be painted on slabs of wood, which were either stuck on the walls or hung from the eaves. The Totos did not leave them there, but carefully wrapped them up in rags and leaves and put them away in bamboo baskets which form their strong boxes.

Between October and December, after they had completed the numbering of houses, and furnished a close preliminary estimate of the State's population, enumerators were methodically trained and persuaded to take a sample training census to test for themselves and for the satisfaction of the supervisory agency the knowledge and skill they had acquired in recording slips. The record thus prepared was systematically discussed and checked in training classes, while, in the meantime, they were provided with pads of enumeration slips and forms of the National Register of Citizens. The final census commenced on the morning of the 9th February 1951, the enumerators beginning their count with the lowest serial in their lists. The first round of enumeration was completed on the evening of the 28th February; the night of the 28th and the morning of the 1st March were devoted to the counting of the homeless population on the streets and open spaces. The first three days of March were employed in a revisionary round when each enumerator went round his area, checked the entries in his preliminary record, made careful tallies of all entries, and added details of those who had subsequently arrived or been born. Preliminary totals were begun on the 4th March in each district, and were telephoned from Calcutta as early as 8-45 P.M. on the 5th March. Birbhum and Cooch Behar telegraphed their totals on the 8th and figures for the State, except West Dinajpur, where an assembly bye-election drew off all officers till the 30th March and cramped their style, were ready on the 16th of March. Figures for the State were published on the 31st March and the difference between these totals (24,786,683) and the figures on final counting (24,810,308) amounted for the whole State to 23,625 or 1 per thousand of population. In some districts, however, the approach to the final figures was very close. In Calcutta, for instance, figures for which were communicated within 2 days of the final census by Sri Khagendranath Mitra, the discrepancy was only ·4 per thousand; Darjeeling, for which figures were telegraphed within 7 days by Sri S. C. Roy, was out by ·2 per thousand; and Bankura, for which figures were telegraphed by Sri Harisadhan Mukherjee within 7 days, was out by only ·1 per thousand. To one conversant with the condition of village roads in the State, the efficiency of the telegraph system, the inaccessibility and snowbound tracks of certain parts of Darjeeling and Sikkim, this promptness will provide no little wonder.

The final results were obtained by sorting, compilation and tabulation, of which there were, as the terms imply, three stages.

Quite some time before the census count, arrangements were completed for the reception of the census records at four regional offices in the State. To the central office at Calcutta were allotted the districts of Hooghly, Howrah, 24-Parganas, Calcutta and Nadia; to the central office at Midnapur the districts of Burdwan, Bankura and Midnapur; to the central office at Berhampur the districts of Birbhum, Murshidabad, Malda, West Dinajpur, Jalpaiguri and Cooch Behar; and to the central office at Darjeeling the district of Darjeeling and the State of Sikkim. Work started in Calcutta in the middle of March 1951; in Midnapur and Berhampur towards the end of that month, after the core of the staff of those offices had fully trained and acquired an amount of skill in the Calcutta Office; and in May in Darjeeling. In the last week of the month of July 1951, the records of West Dinajpur, Jalpaiguri and Cooch Behar were transferred from Berhampur to be sorted and compiled in Calcutta. The Midnapur and Berhampur offices were wound up in the first week of September and the third week of October of 1951 respectively, on the conclusion of sorting and compilation, while the Darjeeling office was wound up on the 29th of August 1951. Thereafter, the records of all the three outlying offices were brought over to Calcutta, together with their best residual staff to complete the final stage of the operations: tabulation of the results and the publication of the final tables.

Sorting is the process of arranging the slips of individuals under the heads required for the various final tables, counting the slips thus arranged, and entering the number on forms provided for the purpose, which are called sorter's tickets. It was performed manually with the help of pigeonholes, similar to those for sorting mail in post offices, no punching or sorting machine having been employed. Each sorter dealt with some 30,000 slips. As soon as information for the Village Directory was extracted from the slips of each village and town, the records were grouped by larger units of roughly 180,000 slips each by combining in some cases two or more police stations. But nowhere did this grouping transgress the bounds of an administrative district, whereas the main population tables for police stations had already been built up from the Village Directories. While sorting was in progress, inquiry was made of district officers into doubtful entries, and various nice points of classification were settled by discussion with colleagues in other States and the Registrar General.

When sorting had advanced a little the central offices undertook compilation of the results entered in sorter's tickets. Compilation is the intermediate stage between the final table form and the raw material of the sorter's tickets, in which matter is rearranged, reconciled and put into shape for police stations, towns and districts for transcription on to the final table forms. The process started almost simultaneously with sorting, but as compilers were also expected to supervise the work of sorters, there was an inevitable time lag, which was perhaps all for the best, because it gave them time so necessary to allow complicated operations to settle well into their minds.

Compilation was carried out in the central offices,—here again without the help of machines, except for a comptometer at each office to help verify the final totals,—as far as to obtain the district totals, and the compilation registers with the sorter's tickets, together with all other records, slips, and the National Register, were then forwarded to the Deputy Superintendent of the Central Office in Calcutta, where the compilations were finally checked and the final tables prepared. This final stage of tabulation was the lengthiest and most harrassing stage, where every little doubt or discrepancy had to be verified again with compilation registers, sorter's tickets, and in several cases, by a fresh sorting of the slips of the population in doubt. Each final table was sent to the office of the Registrar General in New Delhi for a final check before publication.

It is a matter of regret that, apart from a number of information on the Census slip which were never extracted or tabulated for reasons of economy, certain other information, which were extracted, compiled or even finalised in the Central Tabulation Offices are not going to be published, again for reasons of public economy and policy. Neither the Report nor the Tables render an adequate account of the labours performed by the Census Department, an approximate idea of which it will, however, be possible to form when all the twenty and odd reports, including special reports and District Handbooks, which are expected to replace the District Gazetteers, are published in the course of 1953. Nevertheless, the necessity for stringent economy has made it impossible to make use of some part of the information recorded in the slips.

It is difficult to make with confidence an estimate of the accuracy of the results. At every stage error can be introduced by inadvertence or ignorance and a band of about 1,400 inexperienced persons, temporarily employed between three and five months on a consolidated average pay of about Rs. 85/- per month, certainly do not create ideal conditions for patient statistical work or guarantee absolute accuracy. All census reports so far published carry, in varying degrees, traces of hurried work and improbable data, and it is not pretended that the present report has been rid of obvious and bad blemishes. They are spots which an Indian census cannot change. The superintendents, supervisors and enumerators numbering 47,925 in all were a voluntary agency, and, if as long ago as 1872 the first census superintendent had occasion to regret that 'it is also true that some officers have pointed out the unpopularity of the work, and the dissatisfaction of those whose gratuitous services were employed', it requires no great imagination to appreciate the extent of reluctance met with in 1950. Happily, a number of circumstances were in favour of gratuitous service: a genuine desire to discharge a public duty honourably and well in the inviting air of independence; a realisation which, it should be gratefully acknowledged, all sections of the Press did their best to publicise and encourage, that a good and correct census, not secured since 1921 owing to communal rivalry, is essential in 1951 to provide the country the basic human data so necessary for all planning and development; the end of communal rivalry and a general willingness to wish the census a complete success; and, finally, the popularity of the idea of a National Register of Citizens, although ideas were vague about its possible uses consistent with the secrecy of a personal census document. It was the abundance of this good will, which replaced communal rivalry of recent censuses and apathy of earlier ones, which made it possible to take a census in 1951 on a voluntary and gratuitous basis, and ensure a high degree of accuracy. After the conclusion of the census in March 1951, many State Governments, at the request of the Registrar General, arranged for a sample check through their officers of the quality of the census, West Bengal being one of the very few or perhaps alone in declining to do it. Those States which took a sample verification of the results of the census reported that the difference between the results of the verification and the census count was a small under-enumeration, 0·9 per cent in Bombay and a little over 1 per cent in Mysore. It should be borne in mind that West Bengal paid small honoraria to enumerators which might have put them in a better humour than their opposite numbers in other States. In 1941 the Superintendent observed that a census was as good or as bad as the moral attitude of the people towards it, and both in 1921 and 1931 the Superintendents reported that they had had to experience difficulties born of communal rivalry and civil disobedience movements. Conditions in 1951, however, were more favourable to the taking of a correct census than ever before in the history of this country, and experience of past censuses, the advantages of a diminished area rendering closer personal supervision possible, the correct measure of enlightened enthusiasm free from communal bias and rivalry, a favourable Press, must all have contributed a great deal to the thoroughness and accuracy of the count. The paucity, in fact, absence of complaints against having been left out of the count, in spite of repeated notices in the Press inviting them, is a testimony to the thoroughness with which the task may be believed to have been completed, and if in 1921 and 1931 the Superintendents, in spite of unfavourable circumstances, had thought it fit to claim an accuracy of as much as within one per thousand (although the basis of this assertion is nowhere discussed in the reports) for their counts, it may not be unreasonable to claim a greater, if not like, accuracy for this count also. A provisional count taken during the house-numbering stage in November-December 1950 put the estimate for the State at 25,512,714. The final count turned out to be 24,810,308, revealing a deficit of 2·8 per cent from the house-list population. The deficits were most marked in the following districts for which plausible explanations can be readily offered, without laying oneself open to the charge of sophistry: which is, that of these districts Birbhum, Bankura, Midnapur and Murshidabad import large numbers of harvesters, men, women and children, from Bihar and Orissa States in the harvesting season of November-December, who return to their homes in February-March; while in the industrial districts of Howrah and 24-Parganas February and March are the slack months for Jute Mills when the latter declare a holiday to enable Bihar and up-country labour to return to their home in time for the *rabi* harvest. About November-December 1950 Nadia had the largest concentration of Displaced Persons from East Bengal, many of whom, owing to an easing of tension as a result of the Delhi Pact of 1950, the necessity of gathering in the harvest in their villages in East Bengal, and also out of a desire to be counted in Pakistan because a rumour was afoot that anyone who was left out of the census count in Pakistan would be dispossessed of his property, had left Nadia in February-March 1951, still others having been dispersed during January and February 1951 from its large Transit Camps to all parts of the State and even outside the State. Besides, the houselist population was computed with much less care than the final count, there was a tendency on the part of the enumerator to make a liberal estimate at the former stage so that he might not be found wanting in sending his requisition for enumeration slips which was based on that count, and there was a greater tendency on the part of the householder, where modified rationing prevailed, during the houselist count to declare the same strength for his household as he held ration cards for. This last tendency was combated and eliminated by three months of incessant publicity that the census record was a confidential document which could not be made use of by the Rationing Department. To return from the digression, the following were the districts where the discrepancies between the houselist population and the final estimate were the widest as the statement will show :

District	Houselist Estimate	Final Estimate	Variation Increase + Decrease—
Burdwan	2,228,467	2,191,667	— 36,800
Birbhum	1,102,735	1,066,889	— 35,846
Bankura	1,370,732	1,319,259	— 51,473
Midnapur	3,452,154	3,359,022	— 93,132
Howrah	1,688,641	1,611,373	— 77,268
24-Parganas	4,848,497	4,609,309	—239,188
Nadia	1,232,718	1,144,924	— 87,794
Murshidabad	1,770,674	1,715,759	— 54,915
Total	17,694,618	17,018,202	—676,416

It is significant that all the above districts record a decrease in the final count. Calcutta recorded a slight increase from 2,540,357 of the houselist population to 2,548,677, explained partly by the fact that the houselist population did not include that which sleep on Calcutta pavements, open spaces, and markets counted on the reference night of the 28th February 1951. Hooghly records a small increase from 1,551,798 to 1,554,320 perhaps on account of the influx of Displaced Persons; Malda and West Dinajpur a negligible decrease from 955,520 and 738,227 to 937,580 and 720,573 respectively perhaps due to the return of harvesters to Pakistan and Bihar; Jalpaiguri an increase from 898,731 to 914,538 perhaps owing to influx of more Displaced Persons; Darjeeling a decrease from 459,024 to 445,260 perhaps due to people moving to the plains and Nepal in the winter months of February and March; and Cooch Behar records a small decrease from 674,439 to 671,158 perhaps due to too generous an estimate of the population of *Chhitmahals* or the district's enclaves in Pakistan during the houselist stage. It may be mentioned in passing that enumeration of the *Chhitmahals* was the least satisfactory performance of this census, not only because of the inaccessibility of these enclaves and the difficulties put by the Pakistan border police in the way of our enumerators, but also because many residents of these enclaves considered it a safer course to be counted in the Pakistan census which was being simultaneously held at this time. If we leave out of account the differences in the districts of Burdwan, Birbhum, Bankura, Midnapur, Howrah, 24-Parganas and Hooghly, the difference between the houselist population so adjusted and the final count narrows down to only 25,990 (702,406—676,416) or a deficit of only one per thousand of the final population. This is a good enough tally obtained from two independent counts taken three months apart in which the estimated natural increase during the period can just fit in. This looks like a casual treatment of such a weighty subject as population statistics, but, indeed, it is no part of the author's intention to make light of figures which about 50,000 persons have sacrificed their leisure and business gratuitously and ungrudgingly to collect conscientiously and patiently, willingly submitting themselves to months of irksome discipline. But the point which the writer wishes to make out is that the census being a phoenix, rising out of its ashes every ten years, and a person who is primarily an administrator and not a statistician being called upon to conduct a census with the help of a department which he starts from scratch with no preterite tradition to help and guide him except what is left in the administrative reports of his predecessors, such a census is not expected to satisfy all the tests of a scientific inquiry. In making this admission he is claiming no more nor less than what his predecessors claimed for their performances, mindful of the happy possibility that each successive census is by an accumulation of experience and improvement in administrative machinery better and more correct than the preceding one; even as the census of 1961 may be expected to be better than this one. But while this is so, it is well to remember the many shortcomings of the census organisation and its chronic impecuniosity, which prevents a great many improvements from being given effect to. For instance, it is sad to reflect that a superintendent still has to be a geographer, cartographer, administrator, co-ordinator of co-ordinators, a theoretician and a master interpreter all rolled in one, or, for that matter, that we still have to be content with manual tabulation with the help of pigeonholes, squatting cross-legged on the floor seven hours a day, the physical exhaustion of which must ultimately affect the quality of the day's work. And this is a reason why complicated correlations or polynomials have been discarded. In spite of the great improvements introduced from time to time since the first census was undertaken in 1872, the following remarks of the first Census Superintendent in 1872 largely hold good even to this day:

"A census, to be strictly accurate, should be an enumeration of every person in the country at a particular moment of time. If the enumeration is not simultaneous, or, in other words, if the returns do not have reference to some particular period, an element of error is introduced in the possible omission or double entry of persons who have moved from one part of the country to another. The longer the period over which the enumeration extends, the greater of course is the chance of error. Human beings are born and die every moment and therefore from a scientific point of view an enumeration which extends over two or three weeks, or even two or three days, is so far imperfect. For practical purposes, however, such an enumeration is probably quite as useful as any other. In any examination therefore into the results of the late census, it must be understood that no claim is made to scientific accuracy for the work as a whole. If it fairly represents the total number of persons in any particular part of the country at the time that part of the country was censused, the object aimed at may be considered to have been achieved. Where the returns do err, the population no doubt is understated" (Report on the Census of Bengal, 1872, pp. 62-68).

It is only fair that the writer himself should take the opportunity of presenting the worst features of his case, before others happen to pick holes in the fabric. From the experience of other States, and from what has been explained above it seems possible that the population is slightly understated. The outermost limit of this underestimate is stated with great accuracy but is likely to be one per thousand of the final count, and from all internal evidence it is unlikely that the deficit, if any, indeed, should have exceeded it. The innermost limit cannot be stated, either beyond the general remark that the population may be slightly understated.

This Report is being presented with no little feeling of hesitancy. In the very nature of his assignment it is difficult for a Census Superintendent to impart that roundedness or finality to his effort which can defy scrutiny. As the arrangement of the Census Reports and publications set out in an earlier page will show, the present incumbent has had on his hands the building up, editing, printing and publishing of more than two dozen volumes, of an average of 300 closely printed pages of uniform size each, with no 'background' of previous experience, of office, or even trained assistants, officers or scholars to help him. His hour-glass was only three years, the first of which was spent largely in training, holding together, and putting into work, a band of about 50,000 *honorary* workers; the second, spent on working five offices manned by about 1,500 very poorly paid extra-temporary assistants who had to be trained from scratch before being put in charge of work; and the latter eight months of the third under the burden of part-time, and sometimes full time, work in the Development Department of the State Government. Throughout this tenure there was much administrative work to discharge, touring and local investigation to do, the boredom, waste of time, and inconvenience in travelling close on fifty thousand miles in three years being enlivened only by the hobby of making up a catalogue and a fat album of photographs of ancient monuments in the State. Every employee in the several offices was a novice and had to be trained patiently first to be able to undertake his task. The luxury of the assistance or services of scholars was severely denied. Here must be mentioned a circumstance in explanation, if not in extenuation, of the meagre fare provided in many places; for example, in the sections dealing with the natural resources of the State in the Introductory chapter of the present volume. The State having been badly cut up by the Partition of 1947, I felt, soon after assuming charge, that I could not make much of the classic subject of a census report: the rate of change of population and the rate of the rate of change. As alternative fare I thought to give an account of various aspects of the State and accordingly addressed as early as September and October 1950 personal letters to the Directors of the Meteorological Survey of India, the Zoological Survey of India, the Geological Survey of India, the Botanical Survey of India, the Anthropological Survey of India and to several renowned scholars inviting them to contribute short surveys covering West Bengal on the subjects of which they were authorities. The requests were graciously accepted with promises of help. But I regret to have to record that although I did not fail in my duty to send periodic reminders which were acknowledged with assurances of prompt compliance I did not have the good fortune of eliciting any survey from any of these institutions and scholars, except from the Meteorological Survey of India through the Registrar General. Under the circumstances, a layman had to make shift as best as he could.

I cannot acknowledge too fully the services of the great body of private individuals and Government officials who conducted the census and brought it to a satisfactory conclusion. I wish to pay grateful tributes to all voluntary and honorary workers who worked ungrudgingly for a number of months to the detriment of their own convenience and profit. I wish to express my obligations to the Governor for his messages and radio broadcasts, to the Chief Minister, Dr. B. C. Roy, and other Ministers who made references to the necessity of a correct census during their tours, issued messages and gave radio talks, to Sri S. N. Ray, Chief Secretary, whom I bothered in and out of time, to Sri M. M. Basu, Joint Secretary, Home (Constitution and Election) Department, without whose constant advice I do not see how the operations could have gone on so smoothly, to the Divisional Commissioners who obliged me by keeping every request, to the Refugee Rehabilitation, Food, Labour and Development Commissioners, to all Secretaries and Directors of Departments, to their Deputy and Assistant Secretaries, and offices. I wish to thank various non-official organisations like the Chambers of Commerce and editors of journals for having so kindly supplied information always at short notice, to Companies like the Calcutta Electric Supply Corporation and the Tramways Company. I feel that I have omitted to mention a large number of names, both individual and otherwise, to whom I am indebted for assistance and information. The amount of ungrudging help that has been received is overwhelming. Among officers who worked with me, I wish to thank Sri Gaur Chandra Mallik, sometime my Assistant Superintendent, and my Personal Assistant, Sri Binay Bhushan Sengupta, who largely relieved me of routine work towards the concluding stages. I am under a special obligation to Sri Khagendranath Mitra, first Special Officer of Calcutta and later Deputy Superintendent in charge of compilation in the Calcutta Office and all tabulation work, to Sri Pravash Kumar Bose in charge of the Tabulation Office in Midnapur, Sri Sushil Chandra Neyogi, Assistant Superintendent of Census Operations in the Calcutta Office, and Sri Sukman Singh Gajameer in charge of the Tabulation Office in Darjeeling. To them and to all District Census Officers the census owes a great deal of the efficiency and smoothness with which it went, and it is a matter of no small satisfaction that four of them were promoted to the West Bengal Civil Service on the conclusion of the census: Srijuts Bhabatosh Chakravorti of Nadia, Samartosh Banerji of Hooghly, Pravash Kumar Bose of Calcutta, and Kandarpamohan Roy of Chandernagore. I must also express my obligations to all District and Subdivisional Officers who answered my queries patiently for over two years, and, when I was on tour, looked after me in every way. These acknowledgements fail to include a large number of private individuals, institutions and officials as well as members of the Census Department to whom I am indebted in many ways for information and advice, particularly to Srijuts Prabirchandra Sengupta, Bhudebchandra Banerjee, Bimal Kumar Mitra, Sachindranath Mukherjee and Himangshu Sekhar Sen; the text of the Report acknowledges only those whom I have quoted, but I would be failing in my duty if I did not mention my debt to my colleagues in other States, to Sri Sailendranath Sengupta of the West Bengal Judicial Service the opportunity of constant discussion with whom has been one of the privileges of my assignment and whose versatility and probity have rescued this Report from many obvious shortcomings. I wish to express my obligations also to Sri R. A. Gopalaswami, Registrar General for India, to Sri S. K. Dey, Development Commissioner, West Bengal, to Sri Bimal Chandra Sinha of Paikpara, Calcutta and to Professor Sudhangshu Kumar Mukherji for having kindly gone through the draft and suggested amendments. In the end my thanks are due to Sri Ananta Kumar Chakravorti, Librarian of the West Bengal Secretariat Library, whose interest, promptness, and resourcefulness enabled me to consult a large number of books, which could hardly otherwise have been located, and who was good enough to prepare a bibliography of books actually used in the preparation of the Report, the Special publications, and District Handbooks.

To the Manager of the Government of India Press in Calcutta, Sri B. K. Roy, I must offer my sincerest thanks for the consideration, courtesy, and utmost despatch with which he has treated all census script. During the Enumeration period his promptness had made it unnecessary to go to other presses for supplementary work and his advice was always available as to the best, most attractive, and cheapest way of printing a book bristling with long and apparently intractable tables. But for him the publication of the Report would indeed have been a very distressing proposition.

INTRODUCTION

The most important event that has occurred since the last census of 1941 is the partition in August 1947 of what history has so long known as Banga or Bangla or Bengal into two portions, roughly in the proportion of three to five, and the apportionment of the two parts to two entirely separate sovereign States, India and Pakistan. A country which since the beginning of recorded history was regarded as one geographical unit with a peculiar ethnic and cultural homogeneity,—a man from Bengal was a man from Bengal and not from any particular region or district in it, in contrast with a man from Lucknow or a man from Jaunpur or a man from Allahabad, who seldom called himself a man from the Uttar Pradesh—was severed in two in the course of a day. The circumstances that led to the severance and the wounds that are yet unhealed and still bleed from time to time fall in the historic period covered by the late census, and this report will necessarily return again and again to the movement of population preceding and following the Partition. The Partition has changed the face of the State on the map and it is necessary to precede an account of the State's population with brief notes on the shape of the new State, its geographical and geological features, its climate, the ethnic texture of its population, its distribution of agriculture and industry, and the material condition of the people.

General Description

2. The State of West Bengal now comprises two administrative Commissioners' Divisions and fifteen administrative districts. The Burdwan Division consists of the districts of Burdwan, Birbhum, Bankura, Midnapur, Hooghly and Howrah, all of which lie west of the Bhagirathi or Hooghly river. The Presidency Division consists of the districts of 24-Parganas (including the Sundarbans), Calcutta, Nadia, Murshidabad, all of which lie south of the river Ganges or Padma and east of the Bhagirathi or Hooghly except the western half of Murshidabad; the districts of Malda and West Dinajpur, north of the Ganges; and, farther north, the districts of Cooch Behar, Jalpaiguri and Darjeeling. To the district of 24-Parganas has been added an area of 319·8 sq. miles comprising the police stations of Bangaon and Gaighata, formerly of Jessore. From the old district of Nadia have gone to East Bengal the police stations of Gangani, Meherpur, Damurhuda, Alamdanga, Jibannagar, Chuadanga, Kumarkhali, Mirpur, Daulatpur, Bhairamara, Kushtia and Khoksa. This has reduced the area of the district from 2,879 sq. miles before the Partition to 1,527 sq. miles. Although Murshidabad has not lost to East Bengal any entire police station, yet several mauzas of a number of bordering police stations are either in dispute or in *de facto* possession of East Bengal. Five police stations of the old Malda district have gone to East Bengal: they are Sibganj, Nawabganj, Gomastapur, Nachol and Bholahat, which have reduced the area of the district from 2,004 sq. miles before Partition to 1,408 sq. miles of the present day. The old district of Jalpaiguri has been deprived of five thanas which have gone in favour of East Bengal: Tetulia, Pachagar, Boda, Debiganj and Pathgram: the area of the district having been reduced from 3,050 sq. miles to 2,378 sq. miles. In January 1950 the State of Cooch Behar merged into the State of West Bengal and became one of its administrative districts but several of its enclaves, numbering fiftysix, are so locked inside East Bengal territory that it was not possible to take a proper

census of them. The principal of these tracts are—

(1) The *Baishchala tracts*, comprised within three Taluks named Magurmari, Gosaihat, and Gadong, in Pargana Maraghat of the Jalpaiguri District, lying at a distance varying from six to eight miles from the northern frontier near Moranga and Ksheti;

(2) *Teldhar,* formerly known as Gerd Teldhar, forming twelve Taluks, and the *Kotbhajni chhits,* comprising six taluks, within Chakla Boda, in the district of Jalpaiguri, lying west and south-west of Pargana Mekliganj, at a distance varying from five to twelve miles from the western frontier near Haldibari;

(3) The *Patgram chhits,* belonging to Pargana Mekliganj, situated in Pargana Patgram in the Jalpaiguri district;

(4) *Banshkata chhits,* within Pargana Patgram lying very close to the south-west borders of Pargana Mathabhanga;

(5) The *chhits* in Pargana Purvabhag in the district of Rangpur, very close to the south-east borders of Dinhata, the chief of which are Bashpechai, Dakurhat and Dasiarchhara;

(6) The *chhits* in Pargana Bhitarband in the same district, lying near the eastern borders of Dinhata, and comprising the taluks Maidam, Gaochulka, and Baghbunder; and

(7) *Chhit Bara Laukuthi,* a Cooch Behar Taluk, lying within the Guma Duars in the district of Goalpara in Assam, within two miles from the Baxigunj Bunder near the eastern frontier.

Their administration is still a matter of contention between India and Pakistan, into the substance of which it is no call of this Report to enter, but suffice it to say that if anywhere the late Census was at all unsatisfactory it was in these *Chhitmahals* or enclaves involving a population of several thousands. A census of the town of Chandernagore and the enclave of Ghiretty or Gaurhati, formerly French possessions on the river Hooghly within the district of Hooghly, was taken for the first time by the Government of India and is included in this Report because Chandernagore was transferred to India in 1949-50.

3. To the north of the State lies the State of Sikkim with an area of 2,745 sq. miles, the census of which has been taken along with that of Bengal ever since 1891.

Area

4. The area of the State has not been conclusively ascertained. A detailed discussion on the subject will be found in the title pages of Union Table A I of the Tables Volume and it is unnecessary to reproduce all of it here. It is doubtful that areas given since 1872 will bear close examination even when they are carefully reduced to the present boundaries of the State. For the census of 1951 the Registrar General laid down that the area figures were to be supplied by the Surveyor General of India. The decision, a great step taken in the direction of uniformity and reconciliation of differences, has brought out clearly the anomalies that have so far existed and for which no detailed explanation is yet forthcoming. The point will best be illustrated by a statement of areas of West Bengal districts given for 1951 by the Surveyor General of India and the Director of Land Records and Surveys, West Bengal, and in successive census reports from 1901 to 1941. It so happens that districts with great rivers, wide stretches of water and arms of the sea have mostly gone to East Bengal and cases of wide differences are therefore lost to this comparison.

STATEMENT O.1

Areas of districts 1901-1951

	1951		1941	1931	1921	1911	1901
	S. G. India	D. L. R. & S.					
Total for West Bengal	**30,775·3**	**31,044·3**	**29,516**	**30,746**	**30,234**	**30,367**	**27,650**
Burdwan	2,715·9	2,705·4	2,705	2,705	2,703	2,691	2,689
Birbhum	1,754·2	1,742·9	1,743	1,699	1,753	1,752	1,752
Bankura	2,657·7	2,646·9	2,646	2,625	2,625	2,621	2,621
Midnapur	5,258·5	5,253·1	5,274	5,245	5,055	5,188	5,186
Hooghly	1,209·2	1,208·4	1,206	1,188	1,188	1,188	1,191
Howrah	568·2	560·1	561	522	530	510	510
24-Parganas	5,292·8	5,639·9	4,016	5,577	5,176	5,164	2,426
Calcutta	32·3	32·3	34	33	21	32	20
Nadia	1,527·2	1,509·0	1,449	1,511	1,501	1,502	1,501
Murshidabad	2,094·5	2,072·1	2,063	2,091	2,121	2,143	2,143
Malda	1,407·9	1,392·0	1,391	1,232	1,299	1,363	1,363
West Dinajpur	1,384·8	1,385·5	1,389	1,383	1,353	1,358	1,353
Jalpaiguri	2,378·3	2,374·4	2,523	2,405	2,427	2,381	2,424
Darjeeling	1,159·7	1,199·7	1,192	1,212	1,164	1,164	1,164
Cooch Behar	1,334·1	1,322·6	1,318	1,318	1,318	1,307	1,307

5. The differences over the decades in the areas of districts are not so important as the overall area of West Bengal in each census. The fifteen districts are contained in the overall boundary which ought to have measured a uniform number of square miles at each census. More distressing is the present difference between the overall area supplied by the Surveyor General of India and that by the Director of Land Records and Surveys, West Bengal. Their differences lie not only in the computation of the area of the State but also in that of individual districts. While it is to be hoped that these discrepancies will be eventually reconciled, the satisfaction of declaring one single figure as the area of the State, agreed on all hands, has been denied to this Report. There is however nothing for it but to leave the matter there.

The River Systems

6. Starting from the north, the State of Sikkim lies almost due north of the district of Darjeeling. The main axis of the Himalayas skirts the northern boundary of Sikkim, dividing it from Tibet; but one of the loftiest mountains in the world, Kanchanjangha (28,146 feet), lies within Sikkim, and three outliers project far into the plains. The Singalila range strikes southward from Kanchanjangha in 88° E. and forms the boundary between Nepal and Darjeeling, its highest peaks being Singalila (12,180 feet), Sandakphu (11,930), Phalut (11,811) and Sabar Kum (11,636 feet), and the connected ranges and spurs covering the greater part of Darjeeling district. Fifty miles to the eastward, the Chola range runs southward from the Dongkya peak (23,190), dividing Sikkim from Tibet and Bhutan on the east; it is pierced by the Nathu La and Jelap La Passes at 14,140 and 14,390 feet respectively, and separates the basin of the Tista on the west from that of the Torsa on the east. At Gipmochi (the trijunction point of the Sikkim-Bhutan-Tibet boundary) this range bifurcates into two great spurs: one runs to the south-east and the other to the south-west, including between them the valley of the Jaldhaka. From Chumalhari (23,933 feet) another great ridge strikes south through Bhutan between the basins of the Torsa (the Chumbi Valley) and Raidak rivers, terminating in the Sinchula hills which form the boundary between Jalpaiguri district and Bhutan. Sikkim sends out

three rivers to the great Bengal plain all of which pass through West Bengal: the Tista, the Jaldhaka and the Torsa.

7. Darjeeling lying due south of Sikkim is divided into two unequal portions by the Tista: Kalimpong on the east and the great mass of Darjeeling and Kurseong hills on the west. To the north-west lies the Singalila range, which sends a spur down Sukiapokri, Simana, Mirik, Soureni and Gayabari on the west, and veering eastward makes a ganglion at Senchal or Tiger Hill above Ghoom. Three spurs go in three directions, the Darjeeling-Lebong spur to the north, the Bagora-Dow Hill-Mahananda spur to the south, and the Peshok spur to the east. Several rivers take their rise from each spur which, counting from the west, are the Mechi (which forms the boundary between Nepal and Darjeeling); the Balasan, and the Mahanadi or Mahananda (into the Tista fall the Great and the Little Rangits and the Riang rivers) from the Darjeeling spurs. Three rivers descend from Kalimpong; the Jitchu or Ghish, the Namchu or Chel, and the Narchu, while the Rangpo forms the boundary between Kalimpong and Sikkim. The Siliguri subdivision is entirely in the plains which take the feet of the hills from Darjeeling.

8. The district of Jalpaiguri skirts the Kalimpong hills in the north, and, further east, the foothills of Bhutan which are punctuated by several passes between Jalpaiguri and that State at Dalimkot, Chamurchi, Lankapara-Doyapara, Chunabhati, Buxa, Kalikhola and Bhutanghat. It is marked all over by active and abandoned beds of fast-flowing hill rivers the more important of which from west to east are the Mahanadi, which forms for some miles its western boundary, the Tista, the Neora or Dherla which joins the Tista at Domohani, the Jaldhaka, the Tili and the Sili Torsa, the Kaljani, the Jainti, the Phaskhaoa, the Raidak and the Sankosh which forms the eastern boundary of the district. The general direction of the rivers, with the exception of the Mahananda, is from the north-west to the south-east.

9. The district of Cooch Behar adjoins Jalpaiguri on the south-east and is a triangular-shaped territory with the Tista in the west, and eastward are the principal rivers Jaldhaka, Dharla or Dhalla, Torsa, Kaljani, Raidak and Gadadhar, the last also called Sankosh forming almost the eastern boundary of the district with Goalpara in Assam. The general direction of the rivers is from the north-west to the south-east.

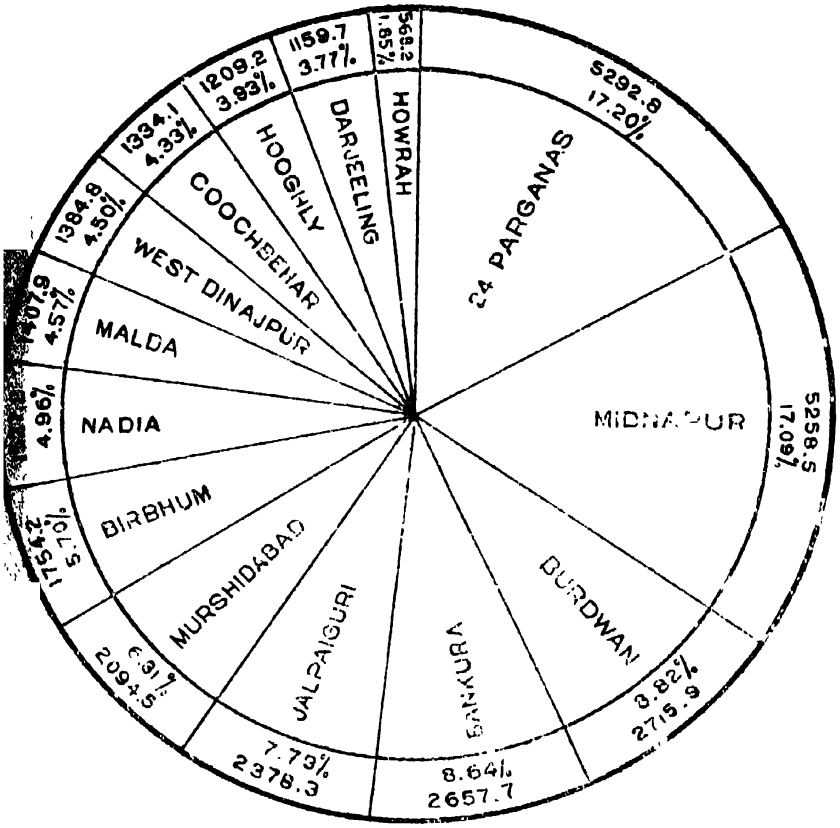
10. A large bit of East Bengal and Bihar intervenes between the block of Sikkim, Darjeeling, Jalpaiguri and Cooch Behar in the North and West Dinajpur to the South, the portion of the old Dinajpur district which formed the link in undivided Bengal having gone to East Bengal after 1947. West Dinajpur is a boot-shaped district with its toe dug into East Bengal the principal rivers in which from west to east are the Nagar or Mahananda which forms the boundary of the district in the west, the Kulik, the Gomar, the Chhiramati, the Tangan and Tulai, the Punarbhaba and Dhepa, the Atrai and Ichhamati, and the Jamuna.

11. South of West Dinajpur and north of the Ganges or Padma which forms its south-western boundary, lies Malda in which the principal rivers are the Ganges, the Pagla, the Kalindri, the Mahananda, the Tangan, and the Punarbhaba which forms the eastern boundary of the district.

12. South of the Ganges, lies Murshidabad, a triangle with its base poised south-east and the apex to the north-west where it is separated from Malda by the Ganges. The rivers west to east are the Bansloi, the Brahmani, the Dwarka, the Mor or Mayurakshi, the Bhagirathi, the Bhairab, and the Jalangi.

13. To the west of Murshidabad and north of Burdwan lies Birbhum, its shape almost like England's, in which the rivers, from north to south, all flow-

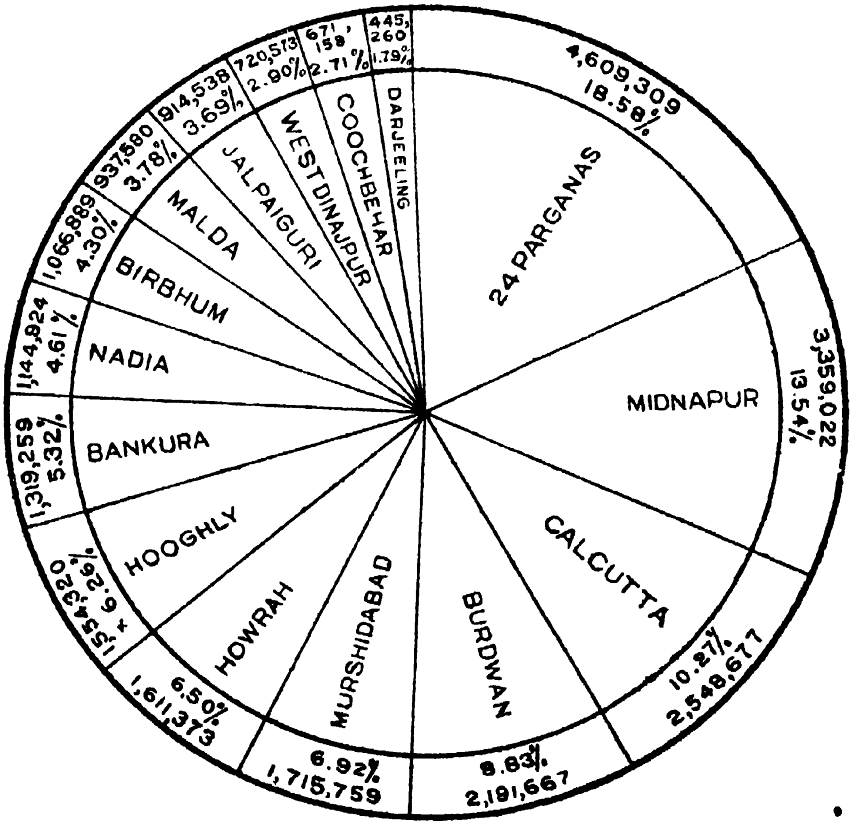
WEST BENGAL
1951



AREA
30775.3 Sq. MILES

AREA OF CALCUTTA WHICH IS 32.3 Sq. MILES CANNOT BE SHOWN ON THE SCALE OF THIS CHART.

POPULATION
24,810,308



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ing west to east into the Bhagirathi, are the Bansloi, the Brahmani, the Dwarka, the Mor, the Bakreswar and Kopai, and the Ajay, the last forming the boundary between Birbhum and Burdwan in the south.

14. To the south of Murshidabad lies Nadia, an irregular strip of territory lying north-south, with the Bhagirathi forming its western boundary first with Burdwan and then with Hooghly. The other main rivers, as one proceeds eastward from the Bhagirathi, are the Jalangi which descends from Murshidabad, the Mathabhanga and Churni, and the Ichhamati. The Jalangi and the Churni flow from the east into the Bhagirathi in the west.

15. To the west of Nadia, west of the Bhagirathi, and south of Birbhum lies Burdwan in the shape of an irregular isosceles triangle, with its base poised south-east, and the apex to the west. The principal rivers are the Barakar, its western boundary, which joins the mighty Damodar, which in turn forms its south-western boundary up to about 2 miles west of Burdwan town; the Dhalkisor or Dwarakeswar which touches its boundary at the south-western corner of Raina, the mighty Ajay, flowing west to east, which forms the district's northern boundary with Birbhum, which enters the district north of Kumarpur in Mangalkot, and joins the Bhagirathi north of Katwa; the Kunur river which flows west to east into the Ajay in Mangalkot, the Khari, the Jujuti-Banka and Gangur all of which flow west to east, into the Bhagirathi. The Bhagirathi forms the eastern boundary. The Nunia, Singaran, Tamla, and Kana are much smaller streams.'

16. South-east of Burdwan, at the base of its triangle, and west of the Bhagirathi, with parts of Nadia and 24-Parganas on the opposite bank, lies Hooghly, the principal rivers of which from the west to the east are the Rangakhal and Tarajuli, the Amodar, the Dwarakeswar and Rupnarayan, the old Dwarakeswar and Mundeswari, the Damodar, the Kana Damodar, all of which flow north to south, while still farther east, the Kunti flows north-eastward, with the Behula still farther north, flowing into the Bhagirathi. The Saraswati is an offshoot of the Bhagirathi which, winding through the district, nearly parallel to the Hooghly, enters Howrah in the south.

17. West of Hooghly and south of Burdwan, wedged in between Burdwan and Midnapur lies Bankura, a district resembling Spain in shape, whose rivers, taking their rise in the Manbhum plateau and beyond, flow west to east across the district. The principal rivers are the Damodar which forms the district's northern boundary; the Sali which rising from the Susunia area falls into the Damodar, the Dhalkisor or Dwarakeswar and Gandheswari which meet north of Sonatapal and flow eastward into Arambag in Hooghly district; the Jaikhal, Bara Aral and Silai; and the Kasai (Kansai or Kansabati) which is in the south; the Dhalkisor and Kasai being the two main rivers passing through the district.

18. South of Hooghly and west of the Bhagirathi, with Calcutta and 24-Parganas on the opposite bank of the Bhagirathi, lies the district of Howrah, the principal rivers of which, running north-south, are the Rupnarayan, which forms the western boundary of the district, the Damodar, the Kana Damodar, and the Saraswati. All of them give into the Hooghly river which forms the eastern boundary of the district.

19. West of Howrah, south-west of Hooghly and south of Bankura, with the Hooghly river as its eastern boundary, the Bay of Bengal its southern boundary, and Orissa, Mayurbhanj, Singhbhum and Manbhum as its western boundaries lies the district of Midnapur, irregular but massive in shape, with a large number of rivers traversing it flowing from the north-west towards the south-east. The

rivers from the west eastward are the Subarnarekha and Dolung which enter Orissa in the south, the Balighai, the Rasulpur, the Kalighai which, joining the Kasai from the north opposite Tengrakhali, forms the Haldi river flowing into the Hooghly, the Parung, the Buri, Tangol and Kusai which join the Silai. The Silai gives into the Rupnarayan at Bandar, 4 miles below Ghatal. The Rupnarayan forms the boundary between Midnapur and Howrah in the east.

20. Calcutta, which lies on the east bank of the Hooghly opposite Howrah city, is an enclave of 24-Parganas district. It contains the bed of an old river, the Adiganga, which, according to many authorities, is the abandoned bed of the Bhagirathi which is now the same as the Hooghly.

21. The district of 24-Parganas is the southernmost district of West Bengal, with the Bay of Bengal as its southern and the river Hooghly as its western boundaries. A large number of rivers traverse the district north to south which from the west eastward are the Muriganga or Baratala, the Banstala, the Saptamukhi, the Gobadia, the Barchara, the Mridangabhanga or Calcherra, the Nukchara, the Pukchara, the Thakuran, the Pilai, the Kumra, the Bidyadhari, the Matla, the Bidya, the Jhilla, the Raymangal and the Kalindi which forms the district's boundary on the east. Further north are the Ichhamati, the district's boundary on the east, as the upper reaches of the Kalindi are called, the Padma a tributary of the Ichhamati, the Jamuna, and again the Ichhamati which comes through Nadia in the north.

Geographical Divisions

22. Clearly in a land of so many rivers the greater part of the soil must be new alluvium, and as the above account of the direction of the flow of rivers suggests, West Bengal can be divided into two clear, natural geographical divisions : the Great Plain of the Ganges and Himalayan West Bengal. The upper limit of the first tract is the northern limit of West Dinajpur, south of which all rivers west of the Bhagirathi flow west to east indicating that the country west of the Bhagirathi increases in elevation as one goes farther west, and also that the Bhagirathi acts as the great drain as well as boundary of this tract. To the east of this tract all rivers flow north to south with a south-easterly slant except the Jalangi and Churni in Nadia which turn westward into the Bhagirathi, the country east of their beds having been raised higher by fluvial action. The second natural division, Himalayan West Bengal, is dominated by the mighty Himalayan Range in the north, in which all rivers take their rise and flow north to south with an easterly slant. This all too brief a review of the rivers of the State will serve as a background to a short geological account of its districts but before proceeding to it it will be necessary to make a note of several violent changes in the course of the last several hundred years in the beds of four of the mightiest rivers in Bengal, the Ganges, the Damodar, the Tista and the Brahmaputra.

Changes in the course of Big Rivers*

23. Probably some time in the 15th century, the main branch of the Ganges was gradually diverted from a southerly course debouching into the western side of the delta, to a south-easterly direction into the Padma, flowing into the Meghna on the eastern side of the delta. About the end of the 17th century, the Damodar must have altered its easterly course to Kalna, to its peculiar course entering the Hooghly at Naoserai. Probably more or less at the same time, the Jalangi opened, flowing south-west into the Hooghly and cutting across the Bhairab flowing south-east. In the middle of the

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* The account is taken from pp. 32—33 of Chapter I of H. G. Reaks' Report on the Physical and Hydraulic characteristics of the Rivers of the Delta, Vol. I.

eighteenth century, the Damodar again changed its main direction, now flowing south. In 1787 the Tista was diverted from a southerly course into the Ganges near Goalundo to a south-easterly course into the Brahmaputra. A few years later, the Mathabhanga-Churni opened south-westward into the Hooghly and the streams in this region flowing south-eastward began to decay. From the middle of the eighteenth century the main stream of the Brahmaputra made a gradual change, flowing south into the Ganges at Goalundo instead of south-east into the Meghna. These changes are discussed in a little more detail below.

24. The Ganges, which enters the western frontier, flows almost due east, with numerous oscillations, as far as Rajmahal, where it escapes from the restraining influence of the hard rocks of the Chhota Nagpur formation and enters the loose alluvium of Bengal proper. Until some 500 years ago, that is, the 15th century, it flowed due east up to Gaur and Pandua in Malda, but its subsequent course was due south, down the channel of the Bhagirathi. By degrees this channel silted up and became unequal to its task, and the main stream of the Ganges was thus obliged to seek another outlet. In this way, the Ichhamati, the Jalangi and the Mathabhanga became in turn the main stream. The river trended ever eastwards, and at last, aided perhaps by one of those periodic subsidences of the unstable surface of the country, it broke eastwards, right across the old drainage channels, until it was met and stopped by the Brahmaputra. According to Hunter's interpretation of Vanden Broucke's map of Bengal, dated 1660, one branch of the Damodar continued an easterly course at Burdwan into the Hooghly near Kalna. Later the Damodar left this channel and a main branch flowed in a north-easterly direction to enter the Hooghly at Naoserai, 12 miles south of Kalna. Some time in the middle of the 18th century, according to Rennell, who shows this channel as an old bed in 1776, the Damodar deserted this course and the main stream followed its present direction southward into the Hooghly at Fulta. The Tista in Rennell's time, about 1776, ran down from the Sikkim Himalayas past Jalpaiguri, and flowing south, commingled with the Karatoa and Atrai rivers and passed into the Ganges near Goalundo. One branch, the Punarbhaba, joined the Mahananda near the latter's confluence with the Ganges. In 1787, not long before the diversion of the Brahmaputra, the Tista, which in its upper reaches is a mere mountain torrent, made a complete avulsion during an unusual flood and leaving Jalpaiguri to the west, flowed south-east in its present upper course, into the Brahmaputra. Probably this was, as Fergusson suggested, along an old bed of the river, since Rennell shows a 'Tista Creek' passing south of Ulipur above the position of its present junction with the Brahmaputra and a series of pools along this course. The mouth of the river has worked downstream considerably since that time. About the time of the irruption of the Tista into it above Dewanganj in 1787, the Brahmaputra deserted its old south-easterly Mymensingh course into the Meghna, to which Fergusson believed it to have been diverted by the elevation of the Madhupur jungle, and this probably took place gradually between 1750 and 1830.

Geology*

25. Birbhum, Burdwan, Bankura and Midnapur form the western boundary of the State in the West Bengal Plain Division. The geological formations in Birbhum are Archaean gneiss, the Gondwana system, laterite, and Gangetic alluvium. The gneiss, belonging to the division designated Bengal gneiss, is remarkable for its heterogeneous composition. Coal is found

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*The writer wishes to express his obligations to Professor Ajit Kumar Saha of Presidency College, Calcutta, for having kindly revised this brief account.

in the Gondwana system in the south-west, north of the Ajay, which forms the small Tangsuli coalfield on the northern bank of the Mor river at the northern edge of the Raniganj coalfields. The coal is of poor quality and often no more than a carbonaceous shale. Ferruginous laterite occupies a large area in the valleys of the Mor and Ajay rivers. The country in the south-east of the district is an alluvial plain with a soil of varying composition from dark clay to sand, but further west, where the ground gradually rises, are found calcareous nodules called ghuting, laterite in the form of gravel and of rock, and granitic and gneissic rocks. A curious mass of granite is found at Dubrajpur about 15 miles south-west of Suri. The Birbhum laterite in the middle west, when first exposed, is rather soft, but after exposure to the air for some time it becomes hard and foveolar like a honey-comb. In some places laterite is found on the surface, underneath which is found a bed of clay, farther below which gneiss is found at variable depths. Sulphurous springs are found in the Bakreswar stream about eight miles west of Suri, some hot and others cold, and both kinds are found within a few feet of each other. Water from one of the springs, *viz.*, the Agnikund, has been found to be strongly radioactive.

26. Burdwan is covered by alluvium except in the Asansol subdivision where Gondwana rocks are exposed. Most of the alluvium belongs to the older alluvium formation, which is usually composed of massive argillaceous beds of a rather pale reddish brown hue, often weathering yellowish, disseminated through which occur *kankar* and pisolitic ferruginous concretions. The soil in the western parts of the district is partly a lateritic clay more or less altered. The beds of the Damodar and the Ajay are often covered with reddish and yellowish coarse-grained sand. The Gondwana rocks in Asansol subdivision form the major part of the Raniganj coalfield and are divisible into an upper and a lower series. The upper series is marked by the prevalence of ferns, cycads and conifers, while the lower series contains equisetaceous plants, glossopteris and cordaitean stems. There is a marked stratigraphical discordance between the two. The lower series again is subdivided into three groups: Talcher, Damuda and Panchet. The Gondwana strata have a general southern dip varying from 5° to 25°, and along the southern boundary they are turned up and cut off by a great fault. East of Raniganj, the Gondwana rocks dip under and are concealed by fairly thick alluvium. The Talcher group, which forms the base of the Gondwana system, consists of silty shales and fine, soft sandstones composed chiefly of quartz and of undecomposed pink felspar. The most striking feature of these rocks is the occurrence among them of faceted pebbles, indicating their transportation by the agency of ice. The Talcher group is superposed by a great series of beds known as the Damuda series which consists of three subdivisions known in ascending order as the Barakar group, the Ironstone Shales, and the Raniganj beds. The Barakars consist of conglomerates, sandstones, shales and irregular coal seams. Above the Barakar group in the Raniganj coalfield, there is found a great thickness of black or grey shales with bands and nodules of clay-ironstone. The Raniganj beds comprise a great thickness of coarse and fine sandstones, shales and coal seams which are continuous over wide areas. The Panchets consist of coarse sandstones with subordinate red clay. The Upper Gondwanas are represented by a 1,000 ft. thick series of red and grey sandstones and shales in the southern part of the coalfield. Near about Durgapur sandstones with numerous bands of red and white-cream coloured clays are exposed, some of

which are utilised for the manufacture of bricks and tiles. Coal is mined in the Raniganj coalfield. Reserves of coal in this coalfield have been conservatively estimated at 82 million tons up to 1,000 feet and 250 million tons up to a depth of 2,000 feet. In addition there are vast reserves of superior non-caking and inferior quality coals. The Raniganj coalfield also contains large reserves of iron ore, occurring chiefly as nodules in the ironstone shales. Good quality fire-clay occurring in the form of seams very much like coal is found in the Barakar stage of the Raniganj coalfield. Besides the fire-clays, various other types of useful clays,—the pottery clay of the Ronei and the light-coloured brick clays of Durgapur,—occur at various places in the Raniganj coalfield area. Inexhaustible deposits of sand, well suited for the purpose of sandstowing in the collieries, occur in the beds of the Damodar, Barakar and the Ajay, while tufaceous and *kankar* deposits, occurring in many places of the Raniganj coalfield, may be used as a flux in the manufacture of iron, and some *kankar* is locally used in a number of small lime kilns.

27. The greater part of the district of Bankura consists of a rolling country covered by laterite and alluvium. To the east there is a wide plain of recent alluvium, while gneissose and schistose rocks of Archaean age are found to the extreme west forming the eastern extremity of the immense area of similar rocks in Chota Nagpur. In addition, sedimentary rocks of the Gondwana system forming the southern part of the Raniganj coalfield occur in the extreme northern part of the district, between Mejia and the Beharinath hill and contain some useful seams of coal. Another small area, about 4 square miles, of Gondwana rocks has recently been located near village Anandapur (23° 26′:87° 14′), about 15 miles due north-east of Bankura town. A number of dolerite dykes cutting across Gondwana rocks as well as the Archaeans are found in the north-western parts of the district. The Archaean rocks are dominantly gneissose, cut across in places by granites, pegmatites and vein-quartz. The south-western parts of the district contain mica-schists and phyllites, continuations of the Iron-ore series of rocks of Singhbhum and Manbhum. Of great interest are the associated anorthosites in the north. They are mono-mineralic rocks, being composed almost wholly of the felspar, labradorite. The anorthosites, together with the interbanded noritic rocks, occupy an area of about 60 square miles. south of the Raniganj coalfield. Another feature of geological interest is the felspathic quartzite forming the top of the Susunia hill. Good outcrops of hornblende-gneisses, traversed by granite veins, are seen in Bankura town, and to its west and south-west, while to the east, the gneiss becomes gradually covered with laterite masses and coarse sandy clays. At the trijunction of Bankura, Midnapur and Manbhum there is an ellipsoidal mass of granite (known as Koelapal granite, starting at Mahadeb Sinan about four miles south-west of Ranibandh on the Koelapal road), some 8 miles by 4 miles in outcrop, the longer axis lying in a north-west—south-east direction. The rock here ranges from gneissic to finely foliated schistose types, with an abundance of pegmatite dykes in the granite body. Prospecting work in the pegmatitic regions has so far been unsuccessful in locating mica deposits of commercial value. Laterite interspersed with associated rocks of sands and gravels forms the most characteristic geological feature of the district. There are true laterites in hard, massive beds and blocks, and laterite gravels, which have all the appearance of being the result of decomposition and rearrangement of the more massive laterite. The ferruginous gravels in some places seem to pass by almost imperceptible changes into the solid laterite,

and in a few instances have become recemented into a mass not easily distinguished from that rock. On the other hand, they pass by equally insensible gradations into a coarse sandy clay, containing only a few of the ferruginous nodules of laterite, which are barely sufficient to give a red tint to the whole. In this case also, calcareous *kankar* is frequently associated. Laterite does not cover any great area in the north, although seen near Barjora, and in thin, small patches near Bankura town. In the higher and more broken ground extending to Sonamukhi and the Dhalkisor, it covers the greater part of the swelling coppice-covered ridges and is for the most part gravelly in character, but here and there forms thick, solid and massive beds. In the south, extending from Bankura town down to Beniapukur, laterite forms low swelling ridges which extend into the district of Midnapur. Of minerals of economic importance, the occurrence of coal in the extreme north of the district and deposits of wolfram at Chhendapathar (J. L. 165, P. S. Ranibandh, south-east of the Koelapal granite 20° 45′:86° 45′) is worthy of note. The laterites occurring in the district are largely employed for building and the gravelly laterite as road metal. The quartzites of Susunia hills are quarried for use as paving stones and stone crockery. Recently an occurrence of China clay associated with the felspathic rocks at Beriathol (J. L. 90, P. S. Saltora 23° 31′:87° 01′) has been reported. The material, although gritty at the surface, shows signs of possible continuation with improvement in quality in depth.

28. The characteristic formation of the district of Midnapur is laterite which occupies nearly the whole country in the north and west, but in the south and east gradually gives way to the alluvium of the Gangetic delta. In the north-west, strongly folded mica-schists, phyllites and epidiorites of Archaean age crop out, being the continuation along strike of similar rocks exposed in Dhalbhum. Beds of gravels, grits, and sand of Tertiary age are found south of the area of Archaean rocks; eastwards they are covered up by the laterites. The Archaean rocks, mainly mica-schists and phyllites of the Iron-ore series, overlain by the Dalma lava, are exposed from near village Sildah (J. L. 305, P. S. Binpur 22° 37′ : 86° 49′) westwards having a general east-west strike. The lava occupies a syncline, the northern edge of which has been overthrust. Beds of fine tuffs are associated with the lava. South of the Dalma Syncline, a ridge of phyllites, grey in colour and everywhere studded with numerous large pseudomorphs after andalusite, extends along the Midnapur-Dhalbhum border. North of these ridges, the phyllites possess various colours and often present a banded structure. Some coarse-grained tuffs occur between Kochagora (J. L. 153, P. S. Binpur, a mile from the border of Singhbhum 22° 36′:86° 40′) and Dakai (J. L. 162, P. S. Binpur on the border of Singhbhum 22° 36′:86° 42′). Laterite rocks, forming a more or less continuous sheet, the intervening alluvial patches being less common than in Bankura, cover an immense area in the district. The majority of the visible surface is gravelly, pisolitic or nodular in character, containing an abundance of small rounded fragments of other rocks. The proportion in which these occur in the ferruginous matrix of the rock is very variable, occasionally constituting the mass of the rock, when the laterite becomes a coarse gritty sandstone of red colour. Often the rock becomes conglomeratic, pebbles of quartz and rounded fragments of other rocks being embedded in it. One of the most remarkable features about the rock is the extraordinary regularity or uniformity in the size of the small nodular rounded masses. Few of them are so much as one inch in diameter, the prevailing size being from one-half to three-quarters of an inch; indeed,

over many square miles it would be almost impossible to discover a single nodule double this average size. Frequently the detrital or nodular laterite is like a loose gravel, each nodule being separate ; but not uncommonly has it been cemented into a solid mass, which is quarried in roadside pits as excellent road metal. In these pits the connexion between the more solid variety and the more loosely coherent material may be traced, the latter having reconsolidated by the infiltration of water, which, decomposing and partially taking up the iron, redeposited it, forming a cement between the nodules. These recemented masses of nodular laterite (*kankar*), formed from the already dried up and exposed particles, generally fall to pieces on exposure. In this respect, as in others, they differ from the more moist and clayey varieties of laterite, the peculiar character of which is that it becomes harder on exposure and desiccation. Where good sections of laterite are available, it is found that they overlie greyish white and reddish clay, which is soft, soapy and felspathic. Over the plateau area in the west, the soil is mostly lateritic clay and sandy loam. In the north-east and eastern parts of the district a light loam predominates, while in the southern parts, dark heavy clays are common. The dark clay is impregnated with salt along the Hijli coastal plain. The gravelly or conglomeratic laterite is widely used as a road metal, while the softer clayey laterite is largely employed for building purposes. In addition, the deposits of soapstone near Katkhura (J. L. 166, P. S. Binpur 22° 35′ : 86° 44′), Katuchua (J. L. 151, P. S. Binpur 22° 37′:86° 41′) and Gohalberia (J. L. 107, P. S. Binpur 22° 39′ : 86° 43′) are quarried and worked into household utensils. An important mineral of the district is common salt which is prepared for local consumption by the villagers along the Midnapur coast by scraping and lixiviation of the saline incrustation on the soil. From time to time, attempts to manufacture salt from sea water on a commercial scale have been made without much success on account of comparatively heavy rainfall, relatively high humidity, shortness of working season and the relatively low salinity of sea water which here is diluted by water from the rivers.

29. With the exception of the Goghat thana, the entire district of Hooghly is alluvial in formation. The greater part of the Goghat thana consists of the low laterite fringe of the Bankura uplands, or of alluvium mixed with laterite debris. In the river beds sand is common ; the country inland has been built by silt deposits. The silt deposits of the Hooghly and the Saraswati are clayey, rather stiff, hard to plough and deep. The silt of the Damodar is loamy, easily percolated and friable. Further west, the land is loamy alluvium with a subsoil of tenacious clay and ghuting, 10 to 30 feet thick, beneath which are found green sand and other alluvial deposits. The only minerals are the laterites in thana Goghat, the ghuting (calcareous concretions) in the western part of the district and the famous binding fine sand in the Kana Nadi at Magra and Pandua and near Kamarkundu.

30. The district of Howrah is composed of alluvium and presents no features of special geological interest. The surface soil in the western parts of the district, served by the Rupnarayan and Damodar, is a sandy loam, while nearer to the Hooghly, a hard clayey loam predominates. The thickness of the alluvium is very great ; it has been encountered all along in the deep borings at Santragachi (714 feet deep), Sibpur Botanic Gardens (690 feet deep) and elsewhere. Results of the above borings which in the main coincide with borings made in Calcutta will be discussed below in connexion with Calcutta. The present configuration of the district is due to the action of its silt-laden rivers. When the whole country is under water, moving rapidly through river beds, and remaining

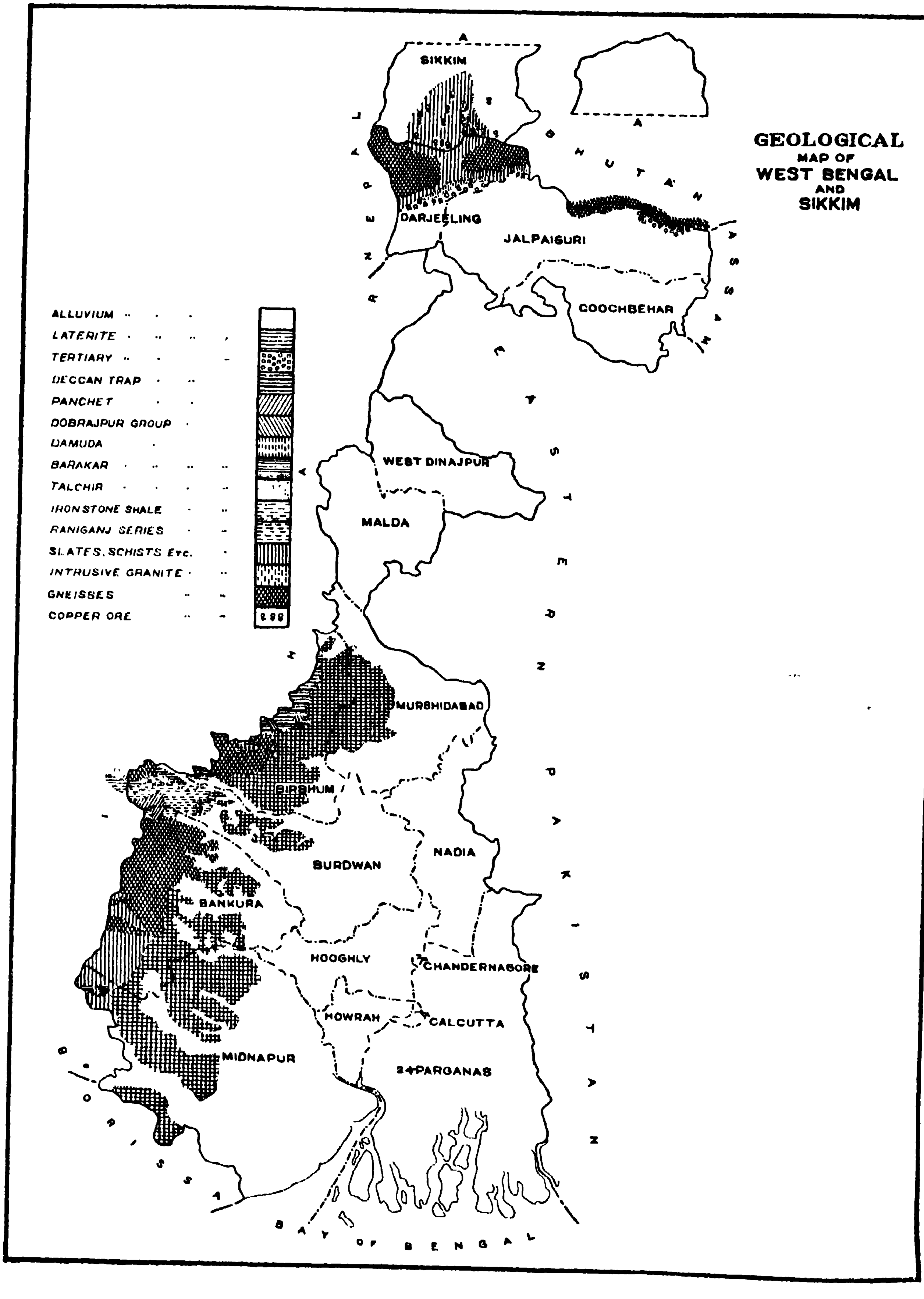
stationary in the intervening marshes, the dead waters of the marshes keep the river water in their channels and help them raise their banks and beds with silt. This gradually gives rise to a crisscross of river channels traversing the country in many directions, between banks which are higher than the intervening flats, and these flats form persistent marshes, known in the Ganges delta as *jhils* or *bils,* saucer shaped depressions which drain the surrounding high land.

31. The district of 24-Parganas is covered with alluvium of great depth. A boring near Akra Road in the Garden Reach Municipality to a depth of 1,306 feet revealed no rocky bottom or marine beds. The surface soil close to the Hooghly is a hard clayey loam, while in the northern parts of the district sandy loam predominates. In the eastern and central parts, the soil is chiefly a clayey loam with some peaty patches in the marshy areas. The soil in the Sundarbans is a heavy clay impregnated with salt. In excavating a tank at Canning in 1859 large *Sundri* trees were found standing as they grew, no portions of their stems appearing above ground. "In the small tank, only thirty yards across, about forty trees were ex-humed ten feet below the surface of the country, their timber undecayed, showing that no very great period of time has passed over their submergence." No marine organisms have been found at depth in the alluvium. A few estuarine fossils were found below a depth of 950 feet in the Akra Road tube well sunk in 1938: these may be easily expected to occur, as at present it would need a depression of only some 30 feet or so to inundate most of the Ganga delta and to permit the deposition of estuarine shells. The occurrence of peat and *kankar* beds indicates clearly a succession of alternate depressions and elevations. The general movement must, however, have been one of progressive slow depression concomitantly with, and largely caused by, the deposition of alluvial matter by the tributary mouths of the Ganges.

32. Data from a number of fairly deep borings in and around Calcutta and those in Howrah mentioned above indicate that the alluvium consists of alternations of clay, sand and silt, together with a few bands of gravel. *Kankar* is often associated with the sands and clays. Beds of peat, containing decayed wood, are found at depths of 5 to 35 feet on both sides of the Hooghly in and around Calcutta. The wood in the peat beds is of two kinds, one of which is the *Sundri* (*Heritiera littoralis*), which grows in abundance on the mud-flats of the Ganges delta, while the other is probably the root of a climbing plant, *Briedelia*. In addition, seeds and some leaves are found in the peat beds. Some bones of terrestrial mammals and fluviatile reptiles have been found in the borehole cores. Only a few fragments of shells are noticed ; they are said to be all of fresh water species. Stumps of *Sundri* trees have also been found at Sealdah in Calcutta at various levels down to a depth of thirty feet. The inference drawn is that the present site of Howrah and Calcutta was near the margin of an alluvial plain and that the land has undergone depression, along with the accumulation of alluvial material.

33. In the district of Nadia the soil is composed of recent alluvium and the surface consists of sandy clay and sand along the course of the rivers, and fine silt consolidating into clay in the flatter portions of the plain, such as in the Kalantar tract between the Bhagirathi and Jalangi.

34. The portion of the district of Murshidabad east of the Bhagirathi is covered with recent alluvium, consisting of sandy clay and sand along the course of the rivers, and fine silt consolidating into clay in the flatter parts of the plain, such as the Kalantar tract between the Bhagirathi and Jalangi, a



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THE MAIN GEOLOGICAL FORMATIONS OF WEST BENGAL

Formations	Geological Age	Occurrence
Newer Alluvium	Recent	All districts.
Older Alluvium	Pleistocene—Recent	Burdwan, Birbhum, Murshidabad, Malda, West Dinajpur.
Laterite	Pleistocene and older	Midnapur, Bankura, Burdwan Birbhum.
Siwalik system—sandstone, shale, lignite	Miocene—Pliocene	Darjeeling, Jalpaiguri.
Gondwana system—sandstone, shale, clay-ironstone, coal-seams	Upper carboniferous—Jurassic	Burdwan, Birbhum, Bankura, Darjeeling, Jalpaiguri.
Buxa series—quartzite, slate, dolomite	Palaeozoic ?	Jalpaiguri, Darjeeling.
Archaean system (including Daling series and Darjeeling gneiss)—gneiss, schist, quartzite, phyllite, slate, granite, anorthosite, tuff, etc.	Archaean	Midnapur, Bankura, Burdwan, Birbhum, Darjeeling, Jalpaiguri.

(By courtesy of Professor Ajit Kumar Saha of Presidency College, Calcutta)

The map is published by courtesy of the Geological Survey of India great saucer-shaped depression. The limit between the alluvium and the higher ground on the west of the Bhagirathi is marked by a bank of stiff clay, gravel, and calcareous nodules called ghuting, an older alluvium which disappears as it passes downwards toward Burdwan, where it amalgamates with the general alluvium, in another huge saucer-shaped depression, called the Hijal *bil*, which is situated at the confluence of the Mor and Dwarka in the Kandi subdivision. In the north-west of the district are some isolated clay hillocks.

35. Malda is covered by alluvium. The eastern part of the district is occupied by the *Barind*, which belongs to an older alluvial formation, usually composed of massive argillaceous beds of a pale reddish-brown hue, often weathering yellowish. Disseminated throughout this soil, occur *kankar* and pisolitic ferruginous concretions. The *Barind* is also found underlying, near the surface, part of the *tal* depression between the Mahananda and the Kalindi showing that the present surface of the district is the result of denudation of the old alluvium of North Bengal, between which and the Rajmahal hills, the Ganges has forced its way south from the west. The lowlying country to the west of the Mahananda is of more recent formation, consisting of sandy clay and sand along the course of the rivers and fine silt consolidating into clay in the flatter parts of the river plain.

36. From the point of view of the geologist, the district of West Dinajpur is exceptionally uninteresting. Almost the whole area is covered by alluvial deposits of recent formation. The soil consists chiefly of a clayey silt, ash-coloured in appearance, locally called *khiyar*. This, a soft sticky loam in the rainy season, hardens almost to the consistency of cement in the dry weather, when it is unsuitable for vegetation. On the banks of some of the principal rivers, the soil consists of a sandy loam. This goes by the local name of *pali*. The older alluvial formation called the *Barind*, described in connexion with Malda, occurs in places in this district in common with other parts of North Bengal.

37. Cooch Behar forms a level plain of triangular shape, intersected by numerous rivers. The soil is uniform throughout, consisting of a light, friable loam, varying in depth from 6 inches to 3 feet, superimposed upon a deep bed of sand. The whole is detritus, washed down by torrents from the neighbouring Himalayas. Apart from the principal rivers mentioned before, there are some twenty minor streams which become navigable only during the rainy season. The river beds are nowhere strongly defined. The streams have a tendency to cut new channels for themselves after every annual flood, and they communicate with one another by cross-country water courses. These fluvial changes have scattered over the country many pools and marshes of stagnant water. No mineral products are known to exist.

38. With the exception of the hilly northern fringe, the whole of the district of Jalpaiguri is covered by alluvial deposits. The alluvium consists of coarse gravels near the hills, and sandy clay and sandy loam further south. A patch of black clay occurs in the area between the Tista and the Jaldhaka. The Buxa series of rocks, composed of the Buxa-Jainti hills, consist of variegated slates, quartzites and dolomites and are fringed on the south by low hills of Upper Tertiary strata. A thin zone of Gondwana sandstones and shales with anthracite coal beds intervenes between the Tertiary and the Buxa series. North of the 2 to 3 miles wide band of the Buxa series lies a series of phyllites, schists and quartzites, known as the Daling series. All these formations have a general east-west strike and dips are generally northwards. West of the Buxa hills,

the Tertiaries are not developed in the foothills region for a length of about 40 miles. They are again seen in the foothills west of the Jaldhaka. Coal is found to occur in the Gondwana rocks near Jainti; it is frequently anthracitic, mostly in lenticles scarcely exceeding 1 foot in thickness, and occurs interbedded with grey carbonaceous sandstone. Lignite, occurring in patches throughout the entire length of the Tertiaries, good deposits being found on the west side of the Jainti river, about 1½ miles from Jainti, is of good quality but much of its economic utility is lost owing to its scattered distribution. Iron ores, mostly haematite, resulting from the alternation of banded haematite-quartzite interbedded with slate and quartzite are locally developed near Gaopata (26° 46′:89° 34′) north of Raimatong (22° 47′:89° 31′) and elsewhere. The ores are of low to medium grade and the supply appears to be rather limited. Disseminations of copper ore occur in the quartzites in the Buxa Duars, but not in economically workable quantities. Argentiferous galena, cerussite, sphalerite and limonite are found in the dolomitic band of Buxa Duars, but have not been fully prospected. The dolomitic limestone bands in the Buxa Duars form the most important mineral deposit in the area. Dolomite is found all along it in the hill range from near Lapchaco to Raidak. A small band of dolomite also occurs along a scarp two miles north of Raimatong. The rock is pure dolomite with occasional pockets of calcite. During the monsoon the streamlets bring down innumerable large boulders of dolomite to the base of the hills, thus forming a very good natural supply of the material. The lime obtained from dolomite is of good quality and of good tensile strength. It is also used as a flux. Large quantities of road and railway ballast are obtained from the gravels and shingles of Jainti river. There is a mineral spring near Buxa, about three miles from Tashigaon, where Bhutias suffering from skin diseases go and bathe.

39. The geological formations of the Darjeeling district consist of unaltered sedimentary rocks, confined to the hills on the south, and different grades of metamorphic rocks over the rest of the area. The outcrops of the various rocks form a series of bands more or less parallel to the general line of the Himalaya and dipping one beneath the other into the hills. A characteristic feature of the southern area is that the older formations rest on the younger, showing a complete reversal of the original order of superposition. The present relief of high peaks and deep valleys has been carved by wind, water and snow, three principal agents of denudation. The *terai* and the plains at the foot of the Himalayas were given their present form after the final upheaval of the range and consist of almost horizontal layers of unconsolidated sand, silt, pebbles and gravel. The foothills, north of the *terai*, are made of similar but well cemented and more compact alluvial detritus consisting of soft, grey, massive sandstones, mudstones, shales, mottled clays, conglomerates and subordinate bands of earthy limestone and lignite. The rocks are of Tertiary age and have been included in the Nahan stage of the Siwalik system of the outer Himalayas. Resting over the Siwalik beds is a group of still older rocks consisting of coarse, hard sandstone, slate, shale and seams of powdered coal. The shales have yielded plant fossils similar to those found in the Damuda stage of the great coal-bearing Lower Gondwana system. North of the Gondwana outcrops, the hills are occupied by a group of low grade metamorphosed sediments represented by quartzites, slates, phyllites, and foliated rocks, composed of flaky minerals such as graphite, chlorite, and sericite. The group overlies the Gondwanas and is known as the Daling series; it rests under a variety of foliated and banded metamorphic

rocks, partly sedimentary and partly igneous in origin and is known under the general name of Darjeeling gneiss. The formations of the southern area, with minor exceptions, are inclined at high angles towards the north and northwest. The Tertiaries fringe the older rocks on the south, almost continuously from close to the Mechi river eastward to the Jaldhaka. The Gondwanas constitute a narrow band between the Dalings and the Tertiaries running from Pankhabari to the Jaldhaka. A thrust relation is clear between the Gondwanas and the Siwaliks, and another thrust plane is found between the Gondwanas and the Dalings. The Buxas, overlying the Gondwanas, occur only at the extreme eastern end of the district. The Dalings occupy the entire length of the district following more or less the same trend and inclination as the younger rocks. The Darjeeling gneiss occupies the greater part of the district, and the higher reaches of the hills. The minerals of the district include coal, graphite, iron, copper ores, lime, etc., but none, except coal, has so far been exploited with profit. The coal is badly crushed and has been rendered powdery, friable and flaky: it does not seem usable for most commercial purposes except when coked or converted into briquettes. Mining is done in the Dalingkote coalfield below Nimbong in the Kalimpong subdivision. Graphite of an inferior quality occurs in the semi-graphitic schists of the Rakti river. As far as is known it is of no economic value. Iron ore, varying from a strong ferruginous clay to an impure brown haematite, is found at Lohargarh to the southwest of the district below Pankhabari and, according to old reports, was formerly worked. High grade magnetite and micaceous haematite, free from sulphur and phosphorus, form a band about 20 feet thick at Samalbong about a mile east—south-east of Sikbar to the east of the Tista. The ore is said to have produced iron of the best quality in the past. Copper ores, chiefly chalcopyrite, occurs in the rocks of the Daling series near Ranihat, at Peshok, near Kalimpong, near Sampther, and in the neighbourhood of the Chel river. No attempt has yet been made to exploit the deposits by modern methods. An occurrence of arsenical pyrites in quartz-schists as a seam 1 foot thick has been reported from the western side of the Sampther hill. There are three possible sources of lime in the district, *viz.*, the dolomite of the Buxa series, the limestone bands in the Tertiary rocks, and deposits of fairly pure calcareous tufa. The district does not possess high class building or ornamental stone but almost all formations yield stone that can be used for building purposes. The government maintain several quarries of quartzite and gneiss commonly used for road metal. The district is exposed to constant danger from landslides, most of which take place during or soon after monsoon. There are several types, the simplest being rock falls, the second, sliding of rock masses, and the third type soil slips. The slow downward creeping movements of soil sometimes give place to sudden and violent landslips. A large number of disastrous landslips occurred between the 11th and 14th June 1950, during a period of continuous heavy rain. They were mostly of the last type mentioned, known as *schuttsturze*. Some of the slips were of composite nature, involving primarily the soil or rocky talus, and also the underlying rock to some extent.

40. Sikkim is essentially a mountainous country without a flat piece of land of any extent anywhere. The mountains rise in elevation northward. The high serrated, snow-capped spurs and peaks culminating in the Kanchanjangha, which form such a characteristic and attractive feature in the scenery of Sikkim, are found in this direction. The northern portion of the country is cut into steep escarpments

and except in the Lachen and the Lachung valleys, is not populated. Southern Sikkim is lower, more open, and fairly well cultivated. This configuration of the country is partly due to the direction of the main drainage, which is southern. The physical configuration is also partly due to geological structure. The northern, eastern and western portions of the country are constituted of hard, massive, gneissose rocks capable of resisting denudation to a considerable extent. The central and southern portion, on the other hand, is chiefly formed of comparatively soft, thin, slaty and schistose rocks which are denuded with facility, and it is this area which is the least elevated and the best populated in Sikkim. The trend of the mountain system viewed as a whole is in a general eastwest direction. The chief ridges in Sikkim, however, run in a more or less north south direction, as for instance, the Singalila and the Chola ridges. Another north-south ridge runs through the central portion of Sikkim separating the Rangit from the Tista Valley. The valleys cut by these rivers and their chief feeders are very deep. The snow-capped jagged ridges in the northern portion of the country send down glaciers which at present usually come down to about 13,500 feet; those from the Kanchanjangha appear to descend about a thousand feet lower. The perpetual snowline in Sikkim may be approximately put down at 16,000 feet, so that the glaciers descend 3,500 to 2,500 below that line. Formerly they used to descend much lower than at present. The rocks belonging to the gneissic group are the oldest. Two forms of gneiss are met with. In Southern Sikkim the gneiss is highly micaceous and frequently passes into mica schists. In Northern Sikkim the gneiss is not quite so micaceous. The Dalings in Sikkim are predominantly phyllites. At the boundary between the Daling and the gneissose rocks, they pass into silvery mica schists; in fact, in this position the passage is sometimes so gradual, that it is difficult to say where the one group begins and the other ends. Igneous rocks are rare. The Sikkim Dalings occur somewhat as domeshaped anticlinals. As for economic minerals copper ores are very widespread in Sikkim and constitute the main source of its prospective mineral wealth. The method of copper mining adopted in Sikkim is very similar to that generally pursued in India in most native operations. The ore is extracted by manual labour, no machinery or even blasting being resorted to. The ores occur in the localities of *Pachikhani, Rhenock, Lingui, Ronglichu, Lindok, Bhotang, Barmaik, Namphak, Dajang, Temi, Tukhani, Mik, Mongbru, Rinchinpong, Bam* and *Rathokhani.* The Nepalese miners have a very keen eye for copper ores: the localities where they have been mining, or rather burrowing, are certainly the most promising in all Sikkim. Iron occurs chiefly as pyrites in association with chalco-pyrite. It is most plentiful at Bhotang, where magnetite also occurs. The iron ores have nowhere been put to any economic use. There are beds of limestone in the Dalings northeast and northwest of Namchi, but it is as a rule too impure to yield good lime. Lime is invariably made from tufaceous deposits which abound in the vicinity of limestone beds, especially at Vok near Namchi, whence large quantities of lime formerly used to go to Darjeeling. Garnet, though abundant in the gneiss and mica-schists at places, does not appear to be fit for the market. The following hot springs are known in Sikkim: *Phut Sachu,* on the east side of the Rangit river, 2 miles northeast of Rinchingpong monastery; *Ralong Sachu,* on the west bank of the Rangit river, about 2 miles N. N. W. of Ralong monastery; *Yeumthang,* on the east bank of the Lachung river, half a mile below Yeumthang; and *Momay* about 16,000 feet above the sea, and only a mile below the glacier of Kanchanjhow.

Soils

41. The geological structure of the State being what has been described above, the soil does not present any great variety in the West Bengal Plain, except in the western fringes of the State, nor in the Himalayan West Bengal except for the reddish yellow soil cap in Darjeeling and Duars which favours the cultivation of tea. The water table is generally at a uniform depth below the surface, except in parts of the western boundary, the porosity of the upper layer resting on a bed of impervious clay, which retains the moisture. No systematic analysis of the soils of the State has been made either by the government or other bodies, and it is to the enterprise of an officer in 1909, D. N. Mookerjee, that the following account, briefly summarised, owes whatever value it possesses. J. K. Basu's Report of 1948 on soil conservation in West Bengal is a first step. S. P. Chatterjee's *Bengal in Maps* appears to be mainly a restatement of D. N. Mookerjee's account.

42. The soil in most parts of Burdwan differs considerably from that of Central Bengal, both chemically and physically, as might be expected from the difference in geological origin. The whole of the western and a very large area in the eastern portions of the district are formed from the debris of the hills of Manbhum, Singbhum, and the Santal Parganas. In the west in many places the soil is formed directly from the subjacent rock more or less altered by the action of rain water, atmosphere, and other disintegrating agencies. The greater portion of the eastern tract consists of materials transported by mountain streams having their origin in the hills mentioned above and pouring their waters into the Hooghly. Soils showing very evident marks of glacial action are also to be met with. The soil is partly a laterite clay, more or less altered, and partly a red coloured coarse grained sand, characteristic of the eastern ranges of the Vindhya formation, large surfaces composed of which are to be found in the beds of the Dwarakeswar, Damodar, and Ajay rivers. Paddy and sugarcane, the two characteristic crops of the Burdwan district, grow both in the laterite clay and the red sand though a soil formed of a mixture of the two is considered best for sugarcane. The clay is very difficult to work, turning into a mass of most tenacious mud in the rainy season and being as hard as stone in the summer. This red clay contains rich stores of phosphorus and hydrated sesqui-oxide of iron.

Greatly the larger part of the cultivated land consists of the low-lying tracts, separating the village sites from one another. This land is mostly clay. The *diara* lands are formed by the deposition of river silt in the beds and on the banks of rivers, and are most sought after by the cultivators. They are renovated every year during the rains by a deposit of silt, and require no manures. They are the most suitable for winter and spring crops, pulses, wheat, barley, oilseeds and vegetables.

43. In Birbhum *Metel* is a clay soil retentive of moisture, which is best suited for growing winter paddy, sugarcane, wheat, gram and kalai. *Entel* (literally sticky) is a brownish clay which becomes very sticky when wet, and gets hard and cracks in long fissures on drying. It is a poor soil, capable of producing paddy only if manured, and will not grow *rabi* crops even with irrigation. *Bagha-entel* (literally, *entel* having the colour of a tiger) is a reddish soil, sticky and tenacious, which contains calcareous nodules. It becomes very hard when dry, and is retentive of moisture for a longer period than any other soil. Like *entel*, it is a poor soil capable of producing paddy only if manured. *Pali* is a deposit of silt in the bed of a river or in areas subject to riverain inundation

and is loose, friable and yellowish in colour. It is a very rich soil, and is well suited for sugarcane, wheat, gram, potato, cabbage and other vegetables. Not much paddy is grown on *pali*, as it is generally reserved for more valuable crops. It will grow *rabi* crops even without irrigation, and provides an excellent earth for pottery. *Reti* or *ret* is generally a synonym for *pali*, but sometimes the term is reserved for a lighter variety of *pali*. It is a reddish, loose and friable alluvial soil. It does not grow rice and is best suited for vegetables, wheat, barley, etc. It is a moist soil which will grow *rabi* crops without irrigation.

Bindi is a sandy soil, which improves with continued cultivation. It is reddish, loose and friable, but not retentive of moisture, it is a poor soil capable of producing paddy, and will also grow *rabi* crops, if irrigated. *Doansh* is a mixture of clay and sand, forming a blackish, loose and friable soil, not very retentive of moisture. It is a rich soil, suitable for all sorts of crops—indeed, in some places *doansh* is held superior even to *metel*. For *rabi* crops, however, it requires irrigation. *Bele* is a whitish, loose and friable soil, not retentive of moisture. It is a poor soil suited only for paddy and vegetables, and will not grow *rabi* crops even with irrigation. *Kankare* (literally gravelly) is a reddish, loose and friable laterite soil containing ferruginous concretions. It is a poor soil, capable of growing *bajra*, maize, *kurthi*, peas, *marua*, and *gondli*. It will also grow *rabi* crops with irrigation, and the jack tree does very well in it. *Bastu* (literally, homestead land) is largely used for *rabi* crops. It is a blackish friable rich soil, which is manured with cowdung, ashes, and other refuse from the village. It is not retentive of moisture, but is well suited for paddy, sugarcane, wheat, peas, linseed, *til*, tobacco, maize and *bajra*.

44. In Bankura the soil consists, for the most part, of sandy loam or a lateritic gravel. Generally speaking, the soil of the high lands (*danga*) is poor, but some varieties of early rice, as well as maize and *rabi* crops, are grown there. The soil of the low lands and valleys is generally fertile, as it is enriched by the detritus washed down from the higher levels. The soil in the Indas and Kotulpur thanas and in the north of the Sonamukhi thana is composed of recent alluvium, and is loamy and clayey.

45. In Midnapur, in its alluvial tract, a clay soil is known as *entel* or *ethel*, loam as *doansh*, *dorash* or *doseta*, and sandy loam as *bele doansh*. In the laterite tract the soils are mostly loam and sandy loam, having the same names as in the alluvial portion, but their colour is reddish brown, and they are inferior in fertility to the corresponding types of soil in the alluvial tract.

Clay soil is subdivided into the following classes: (1) *Ghara ethel*, a very hard clay, the colour of which varies from blackish to yellowish. It is a poor soil requiring much manuring, and is used for walls of huts. (2) *Nona ethel* or *Kush mati* is found near the sea and the tidal rivers and *khals*. It is impregnated with salt, and is unfit for cultivation. Sticky and slippery during the rains, it gets very hard during the dry season, when it has a white coating over the surface (the salt forms the coating). (3) *Banmati* (sometimes also called *pashu mati*) is a soft soil of a reddish colour suitable for rice. (4) *Dudhe ethel* is a black soil used for making pottery.

Pani mati is marshy land; *pali mati* is river silt; *pank mati* is ditch mud; *khar mati* is earth from near the ryot's house where cowdung, ashes, and house-sweepings are deposited.

46. Except in thana Goghat, where the soil is composed of the detritus of the uplands, *viz.*, broken laterite, *kankar*, and older alluvium, the soil of Hooghly consists entirely of new alluvium. This alluvial deposit is 5 to 10 feet thick and rests on a subsoil of

tenacious clay, varying in thickness from 10 to 30 feet. The surface alluvium, where formed from the silt deposits of the Hooghly and its branch, the Saraswati, is of tough clay (*entel*) but that formed from the silt of the Damodar and its branches is light and porous. At places the Damodar, like the Dwarakeswar, has deposited a layer of sand on the subsoil, *e.g.*, at Magra and in thana Arambag. In the swamps, which receive the drainage of the villages, the bottom is of sticky tough clay. The soil in the north of the district is partly a laterite clay and partly a red-coloured coarse-grained sand.

47. The soil throughout the district of Howrah is alluvial and varies from sand in the river beds to sticky clay in the interior along the silted-up streams and mud in the swamps. Clayey and deep loamy soils prevail in the north, and lighter loams in the south, where the deposits are more recent. According to composition, the soil may be *bele* or sandy, *entel* or clayey, *penko* or muddy, *dhasa* or marshy and so forth.

48. The soils of 24-Parganas belong to four main classes, *viz.*, *matial*, or clayey soil, *dorasa* or *doansh* or loamy soil, *balia* or sandy soil and *nona* or saline soil. *Matial* is further subdivided into three varieties called *kala matal, ranga matal* and *jhajhra matal*. *Kala matal* is a stiff black clay of great natural fertility, on which all kinds of crops can be grown. *Ranga matal* is of reddish colour; it cracks in the dry season and sinks into holes in the rains. It is well suited for winter rice, and on higher levels can be used for the cultivation of jute and other *bhadoi* crops. *Jhajhra matal*, which is inferior to the other two varieties, is blackish in colour and easy to plough even when dry. *Dorasa* soil is a mixture of clay and sand. It is used for *bhadoi* and *rabi* crops and also suitable for sugarcane. The *dihi* lands or elevated lands surrounding village sites, come under this category. Being generally highly manured, they are devoted to sugarcane, tobacco, red pepper, and vegetables. *Balia* is a common name for all soils in which the proportion of sand exceeds that of clay. Such soils are used for tobacco, potato, *aus* rice and *mung*. *Nona* is a wet, saline soil, which in ordinary years does not dry up enough to permit of cultivation. It is only when the rains are late that it dries up sufficiently for cultivation to be possible.

The soils in the Sundarbans, where winter rice is practically the only crop, may be divided into the following four classes: *Matial*, a clayey soil, whitish in colour, loose and light in composition. This soil is very suitable for the 'Patna' rice which is grown so largely in the Sundarbans. Next in quality comes loamy soil called *baliara* or *dorasa*. It is reddish in colour and will retain moisture longer than any other soil. Coarse paddy is grown on it, but not very profitably. *Dhap* or *chura* is a soil of a whitish colour, which lies at higher levels than the other classes. Consequently it is not covered with water and the salt is not washed out, unless there is heavy rain. In ordinary years, therefore, no crops can be grown on it, and it only bears *ulu* grass, used for thatching. Paddy can be grown on it when the salt is washed out by heavy rain, but the yield is usually small. *Dhal* is the lowest land of all and consequently flooded earlier than the others. Like *ranga matal*, it is reddish in colour, cracks when dry, and is full of holes in the rains. If there is moderate or scanty rainfall, coarse paddy can be raised on it with profit, but if the rain is early and heavy, it is impossible to bring it under cultivation.

49. The soil varies but little all over the district of Nadia; except for the tract known as the *Kalantar*, and some portions of the Karimpur thana and Ranaghat subdivision, it is almost universally a light sandy loam, possessing but little fertilising power, and incapable of retaining moisture. The

enrichment of the soil by periodic coatings of silt brought by floods no longer takes place. The only tract of any size which presents any marked differences from the general average is that known as the *Kalantar*. This tract commences in the Murshidabad district, comes into Nadia through the gap on the western boundary between the Bhagirathi and the Jalangi, and stretches through the district in a south-easterly direction. It is about 15 miles long and 8 miles broad. It is low-lying, and the surface soil has hardened into a comparatively stiff black clay, which, under favourable conditions, produces a good crop of *aman* rice, but is too water-logged for any autumn crop, and is unsuitable for regular winter crops.

50. The district of Murshidabad is divided into three tracts according to character of soil. The *Bagri* or north-eastern half of the district, east of the Bhagirathi, is low and subject to inundation, but the alluvial soil is very fertile. The principal crops are *aus* or early rice and jute, and when they are off the ground abundant cold-weather crops are raised. In the low lands to the southeast, over the second tract known as the *Kalantar*, practically the only crop is *aman* or winter rice, which depends on floods for successful cultivation. In the *Rarh* or western half of the district, west of the Bhagirathi, the land is generally high but intersected with numerous *bils* and old beds of rivers. Winter rice is the main staple grown on the hard clay of the *Rarh*, and the cold-weather crops are few, but sugarcane, mulberry, tobacco, potatoes, and various vegetables are also grown.

Several kinds of soils are recognised. *Mathal* or *methel* is a clayey soil, which cracks in the hot weather, and is tenaciously muddy after rain. There are various subdivisions according to colour, consistency, etc., *e.g.*, *henre mathal* is black and tenacious, *bagh mathal* is brown, and *ranga mathal* which is found on the west of the Bhagirathi is red with a tinge of yellow. The common name for loamy soil is *doansh*, of which several varieties are recognised, such as *pali* (light brown), *shampali* (ash-coloured), *doma* (dark red), etc. These are all very fertile and produce all kinds of crops. *Metebali* is the name for a sandy loam: if it has a large percentage of sand, it is called *doma bali*. *Bali* or *bele* is a sandy soil found on the banks or in the beds of rivers. It is unprofitable till a clayey silt has been deposited, when it bears a high value, and is chiefly used for vegetables.

51. The southern portion of the district of Malda which receives the Ganges silt, is the most fertile, and next in order comes the northern portion of the district, both these areas being largely double-cropped. The least fertile lands are the higher portions of the *Barind*, and the poor soil of the *duba* (Bamangola and Habibpur) and *tal*.

Common soils of the later alluvium are clay with a small admixture of sand called *matiyal* or *matal*: *dorash* or *doasla*, a mixture of *matal* and sand, and as its name implies, suitable for growing two crops: the mixture of Ganges mud and fine sand known as *mashina*: *chama or jhenjhar*, sandy soil with a somewhat hard crust, only suitable for occasional cropping. *Basta* and *rangamati* are the names of the clay soils of the *Barind* which are blackish and red, respectively.

52. In the north-eastern portion of the district of West Dinajpur the soil is light ash-coloured sandy loam changing gradually as one proceeds south to a stiff clay of similar colour. The former goes by the name of *pali*, is very retentive of moisture and is capable of producing two crops; the latter is known as *Khiyar* and ordinarily bears but a single crop. In the southern or *Khiyar* area isolated patches of the lighter soil are to be found here and there, especially on both sides of some of the larger rivers like the Atrai. This indicates that this sandy loam had its origin in the sand and silt deposited

by the rivers when they overflowed their banks. This is hardly true *pali*, but is rather soil in a transition stage with a larger proportion of sand in its composition than the older *pali*. *Chora* or *balia*, as it is sometimes called, is perhaps a better name for it. Now-a-days the beds of most of the rivers are deep and wide and the deposit of sand or silt by floods is no longer a factor to be reckoned with seriously over the greater part of the district. In the extreme south of the district the *Barind* makes its appearance. The higher ground in this tract is generally barren and little attempt is made to cultivate it. The low ground is a stiff clay of reddish colour and is excellent winter rice land, though, like the *Khiyar* area, it does not lend itself to the cultivation of any other crop.

53. The greater part of Jalpaiguri is covered with alluvium ranging from pure sand to clay. Over most of the district the soil is a sandy loam, but in the basin between the Tista and Jaldhaka rivers it is hard, black, and clayey; excellent bricks and earthenware can be made in this part of the country and the land furnishes good pasture and fine crops of tobacco. In the uplands of the north of the Duars the soil is a ferruginous clay and is particularly well suited to the growth of the tea plant. The Western Duars contains numerous old river beds which have been deserted by the streams which used to flow along them; near the hills they are strewn with stones and boulders, lower down they contain gravel and, in the plains, sand. These deserted river beds are unprofitable wastes, of little use to anyone.

54. In Darjeeling the soil in the *terai* is composed of alluvium, a light sandy loam being the most common. There are also considerable tracts of sandy or gravelly soils, unsuitable for cultivation. In the hills, cultivators recognise only three kinds of soil, white, red, and black. Of these, the black soil is the richest, the white the poorest, the red soil occupying an intermediate position, requiring heavy manuring to give as good an outturn as the black. This last is often found among large rocks and is suitable for dry crops (*Sukhakhet*) such as maize and *marua* (*kodo*) owing to the rich vegetable mould it contains. The fertility of the soil depends much on the geological formation of the underlying rocks from which the soil is derived. The greater portion of the hill area lies on Darjeeling gneiss which most commonly gives a stiff reddish loam but may also produce almost pure sand or a stiff red clay. Generally soils throughout the district are deficient in lime.

55. The soil of Cooch Behar is of alluvial formation and has a large admixture of sand. The greater portion of it is a light loam that can retain moisture and easily give it out, and does not become water-logged. When dry it does not cake up, but yields to light pressure, and easily gets dissolved. Ploughing is thus not difficult. The surface soil, which contains the fine loam, is not ordinarily more than two feet deep, often much less, and contains underneath fine sand, about a foot or two thick, beneath which is found coarse sand. Clay sands form but a small proportion, and except in some Taluks on the banks of the Karatoya, good and stiff clay cannot be found in any part of the district. By far the greater part of the soil is of various shades of ash colour. In the north-eastern part of the country bordering on the Eastern Duars of the Goalpara district, a black loam is found far surpassing all other soils in richness. The portion of the country east of the Kaljani possesses the richest soil. Next come the tract between the Jaldhaka and the Tista and several detached areas west of the latter, such as Taluks Hemkumari and Samilabas. The western part of the district known as Gird Teldhar, situated in Pargana Boda in the district of Jalpaiguri, lying between the old

channel of the Tista, west of Haldibari, and Karatoya, has more clay than sand, and the soil here is harder than in other parts of the district. Pargana Mathabhanga, although more sandy than Gird Teldhar, has less sand than Mekliganj. The proportion of sand in the soil of Pargana Cooch Behar is larger than in Mathabhanga and the soil of Dinhata resembles the soil of Gird Teldhar more than the soil of any other part of the district. Tufanganj mostly resembles Cooch Behar, but its soil is less sandy.

High lands, or *dangas,* in Cooch Behar are generally more sandy than the low lands and less fertile. When properly manured they yield rich crops of tobacco, sugarcane, betelnut and bamboo. The low lands around *bils* and marshes, although rich, are little employed. They grow small quantities of *boro,* locally called *boa,* paddy. The soil intermediate between the high and the low is generally the richest, is of a dull ash colour, and grows jute and paddy. It is a loam of a high order, and can raise two crops in the year.

Except for sandy chars the land everywhere is fertile and does not show appreciable signs of exhaustion.

56. No reliable survey of the soils of Sikkim exists, but cultivation generally, follows the pattern of Darjeeling district.

57. The following presents in a tabular form in their vernacular names the principal soils in the State and their distribution in the districts.

STATEMENT 0.2

Vernacular names of principal soils in West Bengal

District	Heavy clay	Clay	Clayey loam	Loam	Sandy loam	Sand
Burdwan . .	—	Entel or Metel	—	Doansh	—	Bele, or Bele Mati
Birbhum . .	Bagha Entel	Entel or Metel	Bele Metel	Doansh	—	Bele, or Bele Mati
Bankura . .	—	Entel or Metel	Metel Doansh	Doansh	Bele Doansh	Bele, or Bele Mati
Midnapur . .	Ghara Entel	Entel or Metel	—	Doansh or Doansla	Bele Doansh	Bele, or Bele Mati
Hooghly . .	—	Entel or Metel	Entel Doansh	Doansh	Bele Doansh	Bele, or Bele Mati
Howrah . .	—	Entel or Metel	—	Doansh	—	Bele, or Bele Mati
24-Parganas .	—	Entel or Metel	—	Doansh	—	Bele, or Bele Mati
Nadia . .	Entel	Metal	—	Doansh	Bele Doansh	Bele
Murshidabad .	—	Metal	—	Doansh	—	Bele
Malda . .	Jhen-Jhar Rangamati (Barind)	Matial or Matal	Matal Doansh	Doansh	—	Bele
West Dinajpur .	Barind	Khiyar	—	Pali	Bele Doansh	Chora or Balia
Jalpaiguri . .	Hard black clay	Ferruginous clay	—	—	Sandy loam	Sandy & rocky
Darjeeling . .	—	Sukhakhet	—	Panikhet	Sandy loam	Sand & gravel

Climate, Temperature and Rainfall

58. The following account of the climatological characteristics of the area in its three natural divisions, Sikkim, West Bengal Plain and Himalayan West Bengal, is published by courtesy of the Director General of Meteorology, Poona.

Sikkim

59. Sikkim is a small State in the Eastern Himalayas, bounded on the north and east by Tibet, on the southeast,

by Bhutan, on the south by the Darjeeling district of West Bengal and on the west by Nepal. The whole division is situated at a considerable elevation within the Himalayan mountain zone, the ranges that bound it on three sides forming a kind of horseshoe; Sikkim has been described as the catchment area of the headwaters of the Tista river. The altitudes vary from about 5,700 ft. at Gangtok to about 12,300 ft. at Gnatong, and the climatic conditions naturally vary from place to place.

At Gangtok, the mean maximum temperature varies from 58° F. in January to 74° F. in July and August whereas at Gnatong the mean maximum temperature in January is only 37° F. and that in July 56° F. Similarly the mean minimum temperature ranges between 36° F. in January and 59° F. in July at Gangtok and 17° F. in January and 42° F. in July at Gnatong.

The annual rainfall at Lachung is 64″ whereas at Gangtok it is 137″ and at Gnatong 170″. In Lachung the average monthly rainfall varies between 5″ and 10″ in all the months from March to September, with two maxima, one in April when the average fall amounts to 6″ and the other in July when it is 10″. In Gangtok and Gnatong, the distribution of rainfall is not so uniform, and a good amount of the rainfall occurs during the period June to September. December and January are the driest months of the year. Heavy falls are much more frequent at Gangtok and Gnatong than at Lachung. The atmosphere is very humid throughout the year at Gangtok and to a lesser extent at Gnatong.

60. Climatological data of Gangtok and Gnatong and rainfall data of Lachung are given below:—

STATEMENT O.3

Meteorological table compiled from 20 to 27 years' observations between 1894 and 1920

Station Gangtok. Lat. 27° 20′ N. Long. 88° 37′ E. Height above mean sea level 5,760 feet, Approx.

Month	Air Temperature					Relative humidity	Vapour Pressure	Cloud
	Mean 8 hrs.	Mean Daily		Extreme				
	Dry Bulb °F.	Max. °F.	Min. °F.	Max. °F.	Min. °F.	Mean 8 hrs. %	mbs.	
January	45·6	58·3	36·4	71	17	80	8·3	2·5
February	47·0	59·0	37·7	76	18	81	9·0	2·9
March	53·7	66·1	44·2	84	23	75	10·5	2·0
April	59·3	69·9	49·6	82	30	76	13·1	2·2
May	63·0	72·4	53·3	82	34	83	16·1	3·2
June	65·7	73·7	57·5	83	40	90	19·3	5·7
July	66·6	74·3	58·9	87	43	92	20·4	6·3
August	66·5	74·3	58·6	86	41	92	20·3	5·5
September	64·9	73·8	56·8	81	35	91	19·1	5·0
October	61·1	70·9	51·7	83	32	85	15·5	2·8
November	54·7	65·1	44·2	79	27	79	11·6	2·1
December	47·7	60·2	36·1	72	19	78	8·8	1·8
M	58·0	68·2	48·7	..	..	83	14·3	3·5
T	..	..	..	..	..	..	..	..
E	..	..	..	87	17	..	..	..
N	23	23	23	23	23	23	23	20

M=Means T=Totals E=Extreme value
N=Number of years of observations

STATEMENT O.3—concld.

Month	Rain					Wind
	Mean monthly total	Mean number of days	Maximum in 24 hours	Total in rainiest month	Total in driest month	Mean Velocity in miles per hour
	"	"	"	"	"	
January	0·97	2·9	0·90	2·62	0·06	1·1
February	2·74	5·8	3·04	10·48	0·10	1·7
March	5·02	8·5	5·20	10·60	0	1·9
April	11·29	15·0	3·75	20·64	1·37	2·1
May	17·90	19·9	6·95	33·88	10·06	1·8
June	21·75	22·9	4·78	31·35	9·89	1·4
July	25·71	27·6	3·75	31·63	17·10	1·1
August	23·53	27·3	4·09	30·97	16·91	1·1
September	19·11	21·3	5·40	32·61	10·69	0·9
October	5·79	8·7	4·03	11·90	0·76	1·4
November	1·86	3·6	4·47	7·16	0	1·2
December	1·00	2·0	2·46	6·45	0	1·2
M	..	..	..	..	..	1·4
T	136·67	165·5	..	..	..	..
E	..	..	6·95	163·62	113·90	..
N	22	22	27	22	22	21

M=Means T=Totals E=Extreme value
N=Number of years of observations

STATEMENT O.4

Meteorological table compiled from 5 to 11 years' observations between 1910 and 1920

Station Gnatong. Lat. 27° 15′ N. Approx. Long. 88° 50′ E. Approx.
Height above mean sea level 12,300 feet, B. D. Approx.

Month	Air Temperature					Relative humidity	Vapour Pressure	Cloud
	Mean 8 hrs.	Mean Daily		Extreme				
	Dry bulb.	Max.	Min.	Max.	Min.	Mean 8 hrs.		
	°F.	°F.	°F.	°F.	°F.	%	mbs.	
January	28·4	37·5	16·5	61	—5	66	3·4	..
February	29·0	36·8	15·7	57	0	75	3·8	..
March	34·3	41·6	21·8	69	6	72	4·9	..
April	41·0	49·2	29·0	90	15	77	7·0	..
May	44·4	52·1	34·9	92	23	85	8·5	..
June	48·2	54·9	39·8	66	29	85	9·9	..
July	50·0	56·2	42·1	63	35	88	10·7	..
August	49·2	55·5	41·7	65	34	91	10·8	..
September	48·8	55·0	39·5	78	31	85	9·5	..
October	41·3	50·1	30·2	65	14	75	6·6	..
November	35·5	42·9	22·1	67	5	67	4·6	..
December	28·7	36·7	17·7	46	5	72	3·8	..
M	39·9	47·4	29·3	..	..	78	7·0	..
T	..	..	..	..	..	..	..	..
E	..	..	..	92	—5	..	..	..
N	5	5	5	5	5	5	5	..

M=Means T=Totals E=Extreme value
N=Number of years of observations

STATEMENT 0.4—concld.

Month	Rain					Wind
	Mean monthly total	Mean number of days	Maximum in 24 hours	Total in rainiest month	Total in driest month	Mean Velocity in miles per hour
	″	″	″	″	″	
January	2·80	3·0	3·30	9·25	0·06	..
February	7·92	9·6	6·60	24·55	2·12	..
March	8·52	11·8	3·80	13·10	2·42	..
April	11·82	18·2	3·50	19·24	6·97	..
May	17·63	24·1	3·02	32·85	8·24	..
June	29·60	26·4	8·30	42·71	14·27	..
July	37·00	29·2	4·53	48·94	24·47	..
August	28·62	27·5	5·94	45·30	20·33	..
September	16·53	23·6	2·57	20·95	10·07	..
October	4·63	10·5	2·28	13·53	0·52	..
November	4·07	2·6	5·27	13·40	0	..
December	0·92	2·5	1·26	4·03	0	..
M	..	..	..	..	..	..
T	170·06	189·0	..	..	..	..
E	..	..	8·30	200·29	146·78	..
N	11	11	11	11	11	..

M=Means T=Totals E=Extreme value
N=Number of years of observations

STATEMENT 0.5

Average rainfall (in inches) in Lachung, Sikkim

Based on data up to the end of 1940

Station	Annual	Jan.	Feb.	Mar.	Apr.	May	June
Lachung	64·35	0·80	2·69	5·02	6·03	6·25	10·06

Station	July	August	September	October	November	December
Lachung	10·41	9·32	7·69	3·89	1·56	0·63

Himalayan West Bengal Division

61. This division includes the three districts, Darjeeling, Jalpaiguri and Cooch Behar. The area has a net-work of about twenty rain-recording stations and four meteorological observatories, Darjeeling, Jalpaiguri, Cooch Behar and Kalimpong. Cooch Behar and Jalpaiguri districts consist mostly of low-lying plain country except for the northeast of Jalpaiguri where the Sinchula hills rise abruptly to a height of from 4,000 ft. to 6,000 ft. Darjeeling, however, consists of two distinct tracts, the ridges and the deep valleys of the lower Himalayas and the level country at their base. The elevation of the latter is only about 300 ft. above sea level and the mountains tower abruptly from the plains in spurs reaching 6,000 to 10,000 ft., many of them densely clothed with forests up

to their summits. In a country of such varying topography, the climate also varies from place to place. In the Jalpaiguri district itself, the mean annual rainfall varies from 210″ at Buxa to 129″ at Jalpaiguri and 95″ at Debiganj. In the Darjeeling district, Kalimpong gets about 86″ of rain whereas Darjeeling receives 126″ and Kurseong 159″. The average annual rainfall of the Cooch Behar district, which is less hilly and thereby more uniform, is 145″. On account of the great differences in elevation, the temperature conditions also vary widely from place to place.

62. In January the mean maximum temperature is 74° F. at Jalpaiguri, 59° F. at Kalimpong and 47° F. at Darjeeling. The mean minimum temperature in the month is 50° F. at Jalpaiguri, 46° F. at Kalimpong and 35° F. at Darjeeling. In Jalpaiguri, temperature has not fallen so far below the freezing point, whereas in Kalimpong minimum temperature approaching or even slightly below freezing point has been experienced. In Darjeeling, however, temperatures below freezing point are experienced every year and in certain years many degrees of frost occur.

63. In summer Darjeeling is delightfully cool, the mean maximum during the hottest months being about 66° F. and the mean minimum 58° F. whereas for Jalpaiguri the corresponding figures are 89° F. and 77° F. Thunderstorms are frequent during the period April to September at Jalpaiguri and in March to June in Darjeeling.

64. Most of the rainfall in these areas occurs during the monsoon season June to September with appreciable amounts in May and October as well. The rainfall in the remaining months is small. On occasions, in association with severe cyclonic storms from the Bay of Bengal moving towards this division, very heavy rain occurs causing extensive flooding and damage to property and loss of life. There have been occasions when, in association with such storms, as much as 19″ of rain has occurred in 24 hours at Darjeeling and 15″ at Jalpaiguri.

65. Climatological data of Jalpaiguri and Darjeeling and rainfall of select stations are given below :—

STATEMENT O.6

Average rainfall (in inches) in Himalayan West Bengal

Based on data up to the end of 1940

	Annual	Jan.	Feb.	March	April	May	June
Siliguri	137·15	0·42	0·69	1·20	3·59	11·43	27·51
Kalimpong	86·20	0·41	1·13	1·11	2·73	6·27	14·55
Kurseong	159·20	0·68	1·09	1·61	3·94	11·61	31·76
Debiganj	94·54	0·36	0·71	0·93	3·25	10·25	21·84
Buxa	210·48	0·91	1·29	2·73	8·17	19·54	42·18
Cooch Behar	145·07	0·26	0·81	1·64	5·65	16·77	33·79
Mekliganj	116·07	0·28	0·74	1·33	3·66	11·77	25·76

	July	August	September	October	November	December
Siliguri	33·84	28·76	22·88	5·89	0·77	0·17
Kalimpong	22·76	19·88	11·32	5·01	0·71	0·32
Kurseong	42·61	34·41	24·61	5·97	0·57	0·34
Debiganj	20·62	16·58	15·25	4·29	0·36	0·10
Buxa	49·17	43·59	31·07	10·07	1·14	0·62
Cooch Behar	30·97	23·74	23·52	7·31	0·45	0·16
Mekliganj	25·56	22·41	18·45	5·61	0·38	0·12

HIMALAYAN WEST BENGAL DIVISION

STATEMENT O.7

Climatological table of Jalpaiguri

Station Jalpaiguri. Lat. 26° 32′ N. Long. 88° 43′ E. Height above M. S. L. 271 feet.
Based on observations from 1886 to 1940

Month		Pressure	Air Temperature					
					Mean of		Mean of	
		Mean at station level mb.	Mean dry bulb °F.	Mean wet bulb °F.	Daily max. °F.	Daily min. °F.	Highest in the month °F.	Lowest in the month °F.
January	I	1007·8	56·0	54·3	74·4	50·0	78·1	45·4
	II	1004·0	68·5	59·6	..	..	..	..
February	I	1005·5	59·8	57·0	76·9	53·8	83·1	46·0
	II	1001·8	72·4	61·9	..	..	..	..
March	I	1002·3	68·3	63·0	85·2	60·3	92·7	52·0
	II	997·8	80·9	65·3	..	..	..	..
April	I	999·6	75·7	69·6	89·5	68·1	96·6	60·5
	II	994·6	88·6	71·7	..	..	..	..
May	I	997·1	78·5	74·6	89·5	72·6	96·0	66·6
	II	992·7	84·9	76·2	..	..	..	..
June	I	992·8	80·1	77·7	88·6	75·7	94·4	71·0
	II	989·5	84·9	79·5	..	..	..	..
July	I	992·1	81·0	79·0	88·6	77·3	94·3	74·3
	II	989·1	84·6	79·9	..	..	..	..
August	I	993·7	80·9	78·7	88·8	77·3	94·0	73·9
	II	990·5	84·9	79·9	..	..	..	..
September	I	997·6	79·8	77·6	88·1	75·9	93·4	72·1
	II	994·1	83·7	78·7	..	..	..	..
October	I	1002·6	75·8	72·9	86·7	70·3	91·2	63·5
	II	998·9	81·7	74·7	..	..	..	..
November	I	1006·3	67·3	64·1	82·0	60·3	85·9	55·0
	II	1002·6	74·8	67·6	..	..	..	..
December	I	1008·1	58·7	56·5	76·7	53·2	78·9	48.0
	II	1004·5	69·5	62·4	..	..	..	..
Annual Total or Mean	I	1000·5	71·8	68·8	84·6	66·2	98·1	44·5
	II	996·7	80·0	71·4	..	..	..	..
No. of Years	I	50	50	50	50	50	50	50
	II	..	5	5	..	..	..	..

Month		Air Temperature				Humidity		Cloud Amount	
		Extreme							
		Highest recorded °F.	Date and year	Lowest recorded °F.	Date and year	Relative Humidity %	Vapour pressure mb.	All clouds	Low clouds
								Tenths of sky	
January	I	84	3 1931	41	14 1937	89	13·7	1·7	0·5
	II	..		..		57	13·4	1·8	0·9
February	I	88	28 1931	36	3 1905	83	14·5	2·1	2·2
	II	..		..		53	14·0	3·3	2·3
March	I	97	29 1931	46	1 1906	73	17·0	1·9	1·4
	II	..		..		40	13·9	2·1	1·4
April	I	104	11 1932	51	2 1905	73	22·0	3·3	1·7
	II	..		..		42	18·5	2·0	0·9
May	I	103	9 1899	61	1 1910	82	27·1	4·8	5·0
	II	..		..		66	26·7	4·3	3·4
June	I	99	2 1927	67	1 1900	89	30·7	6·0	5·4
	II	..		..		78	31·6	5·4	4·0
July	I	99	31 1933	72	9 1933	91	32·4	6·6	6·8
	II	..		..		80	32·5	6·2	5·1
August	I	99	9 1933	70	26 1918	90	32·4	6·2	5·0
	II	..		..		80	32·3	5·8	4·0
September	I	97	19 1933	70	17 1929	90	30·9	5·5	4·8
	II	..		..		79	31·0	5·7	4·0
October	I	96	1 1926	60	31 1933	86	26·1	2·9	1·8
	II	..		..		71	25·9	3·0	2·0
November	I	90	2 1932	49	25 1914	83	18·9	1·4	0·9
	II	..		..		67	19·7	2·1	1·5
December	I	84	1 1931	42	18 1918	87	14·5	1·2	0·3
	II	.		..		65	15·9	2·2	1·3
Annual Total or Mean	I	104	..	36	..	85	23·4	3·6	3·0
	II	..	..	..	..	65	23·0	3·7	2·6
No. of Years	I	50	..	50	..	50	50	50	5
	II	..	..	..	..	5	5	5	5

NOTE :—The figures I and II in this and other meteorological tables refer to the first and second fortnights of the month.

STATEMENT O.7—contd.

Month		Rainfall						
		Mean monthly total	Mean No. of rainy days	Total in wettest month with year	Total in driest month with year	Heaviest fall in 24 hours	Date and year	Mean wind speed
		in.		in.	in.	in.		m.p.h.
January	I	0·31	0·7	2·07	0	1·40	31 1889	0·9
	II	..	..	1922	..	..		..
February	I	0·67	1·4	3·97	0	2·83	18 1914	1·3
	II	..	..	1934	..	..		..
March	I	1·27	2·3	6·33	0	2·70	7 1926	1·8
	II	..	..	1912	..	..		..
April	I	3·69	5·5	10·47	0	4·90	28 1911	2·4
	II	..	..	1911	..	..		..
May	I	11·82	13·1	32·02	4·02	6·34	31 1938	2·5
	II	..	..	1892	1920	..		..
June	I	25·94	19·1	47·60	4·64	9·25	28 1903	2·1
	II	..	..	1938	1896	..		..
July	I	32·22	22·3	57·31	11·45	15·37	8 1892	2·0
	II	..	..	1926	1930	..		..
August	I	25·27	20·4	51·91	4·50	8·66	22 1901	1·7
	II	..	..	1906	1896	..		..
September	I	21·22	16·4	52·17	5·94	13·69	13 1886	1·5
	II	..	..	1902	1901	..		..
October	I	5·56	5·5	21·10	0·18	9·62	1 1909	1·2
	II	..	..	1929	1935	..		..
November	I	0·49	0·8	5·81	0	3·65	8 1924	1·0
	II	..	..	1932	..	..		..
December	I	0·17	0·4	2·27	0	2·12	25 1932	0·8
	II	..	..	1932	..	..		..
Annual Total or Mean	I	128·63	107·9	168·99	67·70	15·37	..	1·6
	II	..	..	1938	1891	..	..	..
No. of Years	I	55	55	55	55	55	..	48
	II	..	..	..	..	..	..	..

Month		Weather Phenomena*					
		No. of days with					
		Precipitation ·01" or more	Thunder	Hail	Dust-storm	Squall	Fog
January	I	1·0	0·5	0	0	0	1·6
	II	..	..	..	..	..	..
February	I	4	0·9	0	0	0	2
	II	..	..	..	..	..	..
March	I	3	2	0	0·2	0	0·1
	II	..	..	..	..	..	..
April	I	7	7	0·2	0·6	0	1·0
	II	..	..	..	..	..	..
May	I	17	9	0·6	0·7	0·1	0
	II	..	..	..	..	..	..
June	I	24	9	0	0·1	0	0
	II	..	..	..	..	..	..
July	I	25	8	0	0	0	0
	II	..	..	..	..	..	..
August	I	25	8	0	0	0	0
	II	..	..	..	..	..	..
September	I	21	8	0	0	0	0
	II	..	..	..	..	..	..
October	I	5	1·2	0	0	0	0·1
	II	..	..	..	..	..	..
November	I	0·7	0·2	0	0	0	0·2
	II	..	..	..	..	..	..
December	I	0·3	0·2	0	0	0	0·6
	II	..	..	..	..	..	..
Annual Total or Mean	I	133	54	0·8	1·6	0·1	6
	II	..	..	..	..	..	..
No. of Years	I	10	10	10	10	10	10
	II	..	..	..	..	..	..

* Frequencies above 2·0 are given only in whole numbers.

STATEMENT O.7—contd.

Month		Wind												
		No. of days with wind force				Percentage No. of days of wind from								
		8 or more	4-7	1-3	0	N	NE	E	SE	S	SW	W	NW	Calm
January . .	I	0	0	24	7	9	7	2	1	0	1	2	7	70
	II	0	0	8	23	0	0	2	3	1	8	11	2	74
February . .	I	0	0	20	8	9	7	4	3	1	2	2	6	66
	II	0	0	15	13	3	4	9	4	4	8	18	3	47
March . . .	I	0	1	25	5	6	10	14	5	1	1	2	5	56
	II	0	1	22	8	5	15	14	3	3	9	22	2	27
April . . .	I	0	4	25	1	3	14	26	18	3	0	1	1	36
	II	0	1	25	4	9	24	23	4	2	2	16	7	13
May .	I	0	3	27	1	4	12	21	14	4	1	0	2	43
	II	0	2	26	3	3	14	42	15	11	1	2	3	9
June . . .	I	0	1	27	2	4	12	15	12	4	1	0	0	53
	II	0	0	28	2	6	19	27	20	17	2	1	2	5
July . . .	I	0	1	29	1	2	13	13	9	3	1	0	1	57
	II	0	1	27	3	5	20	27	21	9	3	4	1	11
August . . .	I	0	1	27	3	3	13	10	11	2	2	0	0	58
	II	0	1	27	3	5	17	19	20	15	6	4	4	10
September . .	I	0	1	25	4	4	11	9	9	2	1	1	3	60
	II	0	0	22	8	5	11	21	11	10	6	6	3	27
October . .	I	0	0	27	4	8	12	9	3	1	0	0	4	63
	II	0	0	11	20	1	3	9	6	8	1	5	4	64
November . .	I	0	0	27	3	12	8	4	2	1	0	1	9	63
	II	0	0	5	25	3	4	3	1	0	1	4	2	83
December . .	I	0	0	22	9	11	8	2	1	0	0	1	9	68
	II	0	0	7	24	1	4	1	1	1	3	8	2	77
Annual Total or Mean	I	0	12	305	48	6	11	11	7	2	1	1	4	58
	II	0	6	223	136	4	11	16	9	7	4	8	3	37
No. of Years . .	I			5						20				
	II			5						5				

Month		Cloud										
		No. of days with cloud amount (All clouds)					No. of days with low cloud amount					
		0	T-3	4-6	7-9	10 over-cast	0	T-3	4-6	7-9	10	Fog 10
January . .	I	16	9	2	2	2	26	2	1	1	0	1
	II	8	18	3	2	0	17	12	2	0	0	0
February . .	I	7	10	3	6	2	15	5	3	4	1	0
	II	4	15	3	6	0	10	11	4	3	0	0
March . . .	I	16	8	3	3	1	23	3	3	1	1	0
	II	12	12	3	3	1	18	8	2	2	1	0
April . . .	I	13	8	3	5	1	20	5	2	3	0	0
	II	11	13	4	2	0	17	9	3	1	0	0
May . . .	I	2	9	4	12	4	5	9	4	10	3	0
	II	1	14	9	6	1	5	15	6	4	1	0
June . . .	I	0	5	6	12	7	4	5	4	10	7	0
	II	0	7	14	8	1	3	12	9	4	2	0
July . . .	I	0	2	6	15	8	4	3	4	13	7	0
	II	0	3	13	14	1	1	10	9	10	1	0
August . . .	I	0	4	9	13	5	8	4	6	9	4	0
	II	0	4	17	8	2	3	12	10	5	1	0
September . .	I	0	4	7	15	4	7	5	5	10	3	0
	II	0	6	12	11	1	3	12	7	7	1	0
October . .	I	7	12	4	7	1	18	5	2	5	1	0
	II	2	20	4	4	1	7	18	3	2	1	0
November . .	I	9	16	3	1	1	20	8	2	0	0	0
	II	5	21	3	1	0	12	15	2	1	0	0
December . .	I	14	13	2	1	1	24	5	1	0	0	1
	II	9	16	4	2	0	18	10	2	1	0	0
Annual Total or Mean	I	84	100	52	92	37	174	59	37	66	27	2
	II	52	149	89	67	8	114	144	59	40	8	0
No. of Years . .	I			5					5			
	II			5					5			

STATEMENT O.7—concld.

Month		Visibility* No. of days with visibility Up to 1,100 yds.	1,100 yds to 2·5 mls.	2·5 to 6·25 mls.	6·25 to 12·5 mls.	Over 12·5 mls.
January	I	1·9	10	11	3	5
	II	0	0·7	17	12	1·1
February	I	0·9	4	12	6	5
	II	0	0·9	9	12	6
March	I	0	1·6	14	9	7
	II	0·1	0·9	8	16	6
April	I	0	1·3	11	11	7
	II	0·1	0·4	7	16	7
May	I	0	0·6	2	14	14
	II	0·1	0·1	2	10	19
June	I	0	0·9	4	14	11
	II	0	0·3	0·9	11	18
July	I	0·1	1·5	4	16	9
	II	0	0·1	1·0	16	14
August	I	0	2	7	14	8
	II	0	0·7	3	15	12
September	I	0	1·7	4	15	9
	II	0	0·3	1·5	16	12
October	I	0·6	0·5	2	13	15
	II	0	0·1	1·3	14	16
November	I	0·3	0·5	7	11	11
	II	0	0	13	13	4
December	I	1·0	3	17	6	4
	II	0	0·4	18	9	4
Annual Total or Mean	I	5	28	95	132	105
	II	0·3	5	82	160	119
No. of Years	I			8		
	II			8		

*Frequencies above 2·0 are given only in whole numbers.

STATEMENT O.8

Climatological table of Darjeeling

Station Darjeeling. Lat. 27° 03′ N. Long. 88° 16′ E. Height above M. S. L. 7,432 feet

Based on observations from 1881 to 1940

Month		Pressure Mean at station level	Air Temperature Mean Dry Bulb	Mean Wet Bulb	Mean (of) Daily Max.	Mean (of) Daily Min.	Mean (of) Highest in the month	Mean (of) Lowest in the month
		mb	°F.	°F.	°F.	°F.	°F.	°F.
January	I	776·8	41·7	38·7	47·0	35·4	54·2	30·7
February	I	775·7	41·9	39·1	47·8	36·6	56·2	30·4
March	I	775·8	49·9	45·4	55·4	43·0	64·5	36·2
April	I	775·8	55·2	50·9	61·2	48·8	69·1	42·2
May	I	775·0	57·5	55·7	62·9	52·4	70·3	46·8
June	I	772·6	60·6	59·9	64·9	56·5	71·1	50·5
July	I	772·4	61·7	61·0	65·7	58·0	71·9	55·4
August	I	773·6	61·6	60·6	65·6	57·7	71·8	55·3
September	I	776·3	60·0	58·7	64·6	56·0	70·8	52·6
October	I	778·6	56·3	53·6	61·7	50·2	67·8	44·3
November	I	778·9	50·5	46·0	55·6	43·1	61·1	38·2
December	I	778·0	44·5	40·0	50·5	36·6	57·0	32·9
Annual Total or Mean	I	775·8	53·5	50·8	58·6	47·9	72·6	30·2
No. of Years	I	50	50	50	50	50	50	50

HIMALAYAN WEST BENGAL DIVISION

STATEMENT O.8—contd.

Month		Air Temperature				Humidity		Cloud amount	
		Extreme							
		Highest recorded	Date and year	Lowest recorded	Date and year	Relative Humidity	Vapour Pressure	All clouds	Low clouds
		°F		°F		%	mb.	Tenths	of sky
January	I	61	23 1920	26	27 1893	78	7·0	4·3	3·0
February	I	62	28 1920	23	11 1905	79	7·3	4·8	3·1
March	I	74	29 1935	31	6 1908	72	8·6	3·8	1·8
April	I	80	13 1910	34	26 1933	75	11·1	4·9	1·2
May	I	75	18 1916	42	7 1939	89	14·2	7·0	4·9
June	I	80	20 1902	47	1 1938	96	17·0	8·6	4·3
July	I	77	30 1919	45	17 1933	96	17·9	8·9	5·4
August	I	77	25 1919	52	22 1933	95	17·7	8·8	4·6
September	I	80	4 1900	50	30 1940	93	16·4	8·0	5·0
October	I	74	3 1938	40	31 1913	84	13·1	5·4	3·0
November	I	67	7 1915	31	29 1896	72	9·2	3·6	2·6
December	I	63	8 1904	29	31 1905	69	6·9	3·2	1·7
Annual Total or Mean	I	80	..	23	..	83	12·2	5·9	3·4
No. of Years	I	50	..	50	..	50	50	50	..

Month		Rainfall						
		Mean monthly total	Mean No. of rainy days	Total in wettest month with year	Total in driest month with year	Heaviest fall in 24 hours	Date and year	Mean wind speed
		in.		in.	in.	in.		m.p.h.
January	I	0·53	1·2	3·05 1899	0	1·50	31 1889	2·6
February	I	1·19	2·6	3·82 1940	0	1·69	20 1940	4·1
March	I	1·88	3·6	5·63 1918	0	2·84	29 1936	5·0
April	I	4·14	7·5	11·24 1925	0·42 1939	5·32	18 1916	5·7
May	I	9·63	14·4	19·59 1887	2·97 1929	9·17	27 1887	4·8
June	I	24·18	21·0	48·48 1913	8·53 1888	9·65	26 1918	3·9
July	I	32·92	25·6	58·26 1890	15·50 1903	7·67	20 1924	3·5
August	I	26·56	23·7	40·25 1905	14·15 1920	9·35	8 1915	3·4
September	I	18·90	17·0	46·84 1902	5·61 1891	19·40	25 1899	3·2
October	I	5·41	4·8	35·95 1929	0	13·17	20 1929	2·6
November	I	0·81	1·2	14·68 1912	0	8·65	2 1912	2·0
December	I	0·27	0·7	2·52 1913	0	1·23	19 1885	1·9
Annual Total or Mean	I	126·42	123·3	158·44 1890	89·42 1907	19·40	..	3·6
No. of Years	I	60	60	60	60	60	..	60

STATEMENT 0.8—contd.

Month		Weather Phenomena*					
		No. of days with					
		Precipitation ·01″ or more	Thunder	Hail	Dust storm	Squall	Fog
January . . .	I	2	0·4	0·3	0	0	5
February . . .	I	7	0·1	0·4	0	0	6
March . . .	I	8	4	1·0	0	0	5
April . . .	I	13	7	1·1	0·3	0	1·9
May . . .	I	22	7	1·4	0·1	0	11
June . . .	I	27	3	0·1	0	0·3	19
July . . .	I	29	1·6	0	0	0	21
August . . .	I	27	1·6	0	0	0	22
September . .	I	23	1·5	0	0	0	16
October . . .	I	6	0·3	0	0	0	3
November . .	I	2	0·1	0	0	0	3
December . .	I	1·1	0·1	0	0	0	2
Annual Total or Mean	I	167	27	4	0·4	0·3	115
No. of Years . .	I	10	10	10	10	10	10

Month		Wind												
		No. of days with wind force				Percentage No. of days of wind from								
		8 or more	4-7	1-3	0	N	NE	E	SE	S	SW	W	NW	Calm
January . . .	I	0	0	24	7	4	7	9	4	1	2	6	1	66
February . . .	I	0	0	22	6	4	7	7	3	2	3	12	2	61
March . . .	I	0	1	23	7	5	8	6	3	2	5	12	2	57
April . . .	I	0	0	24	6	4	7	6	2	1	4	13	3	61
May . . .	I	0	0	25	6	3	5	4	3	0	5	15	3	61
June . . .	I	0	1	25	4	3	6	7	5	1	2	13	3	60
July . . .	I	0	0	28	3	3	8	9	4	1	1	5	2	68
August . . .	I	0	1	24	6	4	8	8	3	0	1	5	2	69
September . .	I	0	1	24	5	3	5	4	1	0	2	6	2	77
October . . .	I	0	1	26	4	4	9	5	3	0	1	4	2	72
November . .	I	0	1	24	5	3	10	9	4	1	1	3	2	67
December . .	I	0	0	25	6	3	8	12	3	1	2	3	2	65
Annual Total or Mean	I	0	6	294	65	4	7	7	3	1	2	8	2	65
No. of Years . .	I	5				20								

Month		Cloud										
		No. of days with cloud amount (All clouds)					No. of days with low cloud amount					
		0	T-3	4-6	7-9	10 overcast	0	T-3	4-6	7-9	10	Fog 10
January . . .	I	4	10	9	5	3	6	11	8	3	1	2
February . . .	I	1	9	6	7	5	3	10	8	4	1	2
March . . .	I	4	13	5	4	5	12	12	2	1	1	3
April . . .	I	3	13	8	5	1	15	12	1	1	1	0
May . . .	I	0	6	3	11	11	2	12	2	6	2	7
June . . .	I	0	2	2	7	19	0	4	2	3	11	10
July . . .	I	0	0	1	5	25	0	2	2	2	9	16
August . . .	I	0	1	2	7	21	0	5	2	8	8	8
September . .	I	0	3	4	13	10	0	9	3	5	1	12
October . . .	I	3	11	5	7	5	5	13	6	3	1	3
November . .	I	4	14	3	8	1	7	14	3	5	0	1
December . .	I	7	13	3	6	2	12	13	2	3	0	1
Annual Total or Mean	I	26	95	51	85	108	62	117	41	44	36	65
No. of Years . .	I	5					5					

*Frequencies above 2·0 are given only in whole numbers.

STATEMENT O.8—concld.

Month		Visibility*				
		No. of days with visibility				
		Up to 1,100 yds.	1,100 yds. to 2·5 mls.	2·5 to 6·25 mls.	6·25 to 12·5 mls.	Over 12·5 mls.
January	I	5	6	5	6	9
February	I	5	7	5	5	6
March	I	3	6	6	8	8
April	I	4	5	5	5	11
May	I	13	5	4	3	6
June	I	21	4	1·4	1·1	3
July	I	23	3	1·3	1·3	2
August	I	22	3	1·1	1·9	3
September	I	15	4	3	3	5
October	I	6	4	3	4	14
November	I	5	3	3	3	16
December	I	3	4	3	5	16
Annual Total or Mean	I	125	54	41	46	99
No. of Years	I	8				

*Frequencies above 2·0 are given only in whole numbers.

West Bengal Plain Division

66. This division includes the districts of Hooghly, Howrah, 24-Parganas, Calcutta, Burdwan, Birbhum, Bankura, Midnapur, Nadia, Murshidabad, Malda and West Dinajpur. It has a good network of raingauge stations and meteorological observatories. Intersected by innumerable river channels and abounding in swamps, while open to the damp winds from the Bay of Bengal which begin to blow on the coast as early as February and gradually penetrate farther inland with the increasing heat, the climate of Bengal is characteristically damp.

67. The cool weather sets in by about the middle of November and lasts up to about the middle of February. During this period the weather is cool and pleasant though less bracing than in the more westerly states. The mean maximum is about 80° F. in Calcutta during December and January and the mean minimum 55° F. Asansol is cooler by about 2° and Malda by about 4°—5°. The dampness of the climate manifests itself in frequent fogs over the rivers and the low surrounding areas.

68. About the end of February, the days begin to be appreciably warmer and in March and April the rise of temperature is rapid. The mean maximum temperature in April is 97° F. at Calcutta, 101° F. at Midnapur, 100° F. at Burdwan, 102° F. at Asansol and 99° F. at Berhampur. The highest maximum temperatures of the year are often recorded in May. It varies from about 108° F. at Calcutta, 115° F. at Midnapur, Burdwan and Berhampur, 117° F. at Asansol to 110° F. at Malda. During this period, the nights are also warm and sultry ; with the onset of the monsoon early in June, the temperatures fall steadily and the cool season sets in by November.

69. December is the driest month of the year. In January and February, there are one or two rainy days, but rainfall is less frequent than in the rest of north India. The rains are generally preceded by cloudy weather with southerly winds. When the weather clears after the rains, appreciable fall of temperature occurs. Rainfall is more frequent in March, April and May and is associated with Nor'westers some of which are very severe and accompanied by squally winds and heavy rain. These Nor'westers are more frequent in May. In the early part of June, clouds gather more thickly and heavy and continuous rain ushers in the monsoon. This first burst of the monsoon rains often accompanies a cyclonic

storm formed either at the head of the Bay of Bengal or over the delta itself. The first onset generally carries the rains into the greater part of Bengal. Bursts of rain, alternating with sporadic showers and an occasional rainless interval, rarely lasting more than a day or two follow in succession through July and August. In September the rainless intervals increase and the monsoon withdraws from the division by about the beginning of October. The mean rainfall during the months June to September, which is the rainiest period for the area, is about 40″—50″. The variability of rainfall in this area is small.

70. Climatological data for Calcutta, Asansol and Malda and rainfall data of some select stations are given below.

STATEMENT O.9

Average rainfall (in inches) in West Bengal Plains

Based on data up to the end of 1940

	Annual	Jany.	Feby.	March	April	May	June
Hooghly	57·00	0·40	1·31	1·37	2·28	5·78	9·77
Howrah	59·58	0·40	1·15	1·29	1·90	5·00	11·14
Saugor Island	68·80	0·41	1·15	1·29	1·17	4·52	11·63
Dum Dum	61·44	0·42	1·15	1·36	2·00	5·63	11·54
Burdwan	59·62	0·45	1·32	1·56	1·94	5·96	10·52
Suri	56·12	0·44	0·95	0·94	0·99	3·83	10·16
Mayureswar	38·22	0·22	0·32	0·16	0·10	2·78	7·44
Bankura	55·52	0·58	1·14	1·09	1·25	4·07	10·53
Midnapur	58·71	0·47	1·35	1·41	1·70	4·74	10·21
Krishnagar	57·36	0·45	1·15	1·52	2·28	6·71	10·33
Berhampur	54·60	0·38	0·83	1·04	1·48	5·33	9·67
Balurghat	66·83	0 35	0·72	0·77	1·64	6·94	12·19

	July	August	September	October	November	December
Hooghly	11·46	11·43	8·42	3·84	0·69	0·25
Howrah	12·53	11·98	9·01	4·39	0·60	0·19
Saugor Island	15·44	13·28	10·35	8·07	1·28	0·21
Dum Dum	12·91	12·11	9·15	4·29	0·70	0·18
Burdwan	12·80	11·92	8·80	3·30	0·86	0·19
Suri	12·92	12·55	9·37	3·40	0·47	0·10
Mayureswar	10·21	8·81	5·42	2·68	..	0·08
Bankura	12·98	12·13	7·87	3·12	0·65	0·11
Midnapur	12·74	12·75	8·51	3·80	0·87	0·16
Krishnagar	11·25	10·38	7·96	4·24	0·98	0·11
Berhampur	10·87	11·41	9·14	3·64	0·65	0·16
Balurghat	13·58	18·01	11·98	5·20	0·37	0·08

WEST BENGAL PLAIN DIVISION

STATEMENT O.10

Climatological table For Calcutta

Station Calcutta. Lat. 22° 32′ N. Long. 88° 20′ E. Height above M. S. L. 21 feet
Based on observations from 1881 to 1940

Month		Pressure	Air Temperature					
					Mean (of)		Mean (of)	
		Mean at station level mb.	Mean Dry Bulb °F	Mean Wet Bulb °F	Daily Max. °F	Daily Min. °F	Highest in the month °F	Lowest in the month °F
January	I	1016·6	59·7	57·2	79·6	54·6	83·8	49·1
	II	1013·0	73·8	62·7	..	..	..	..
February	I	1014·3	65·6	62·2	83·7	59·4	90·2	51·9
	II	1010·7	78·4	65·5	..	..	..	..
March	I	1011·0	75·2	70·7	92·5	68·8	98·8	60·5
	II	1007·0	87·8	71·6	..	..	..	..
April	I	1007·6	82·7	77·0	96·8	75·5	103·1	68·4
	II	1003·4	92·6	76·9	..	..	..	..
May	I	1004·2	85·2	79·6	95·6	77·5	103·2	70·3
	II	1000·4	88·5	80·2	..	..	..	..
June	I	999·8	84·3	80·0	92·4	78·6	99·1	73·8
	II	996·9	86·2	80·8	..	..	..	..
July	I	999·2	82·6	79·3	89·5	78·6	93·5	75·5
	II	996·5	84·9	80·5	..	..	..	..
August	I	1001·1	82·3	79·5	89·0	78·3	92·0	75·6
	II	998·0	84·8	80·3	..	..	..	..
September	I	1005·2	82·4	79·2	89·9	78·0	92·5	74·9
	II	1001·9	84·5	79·8	..	..	..	..
October	I	1010·6	79·3	76·0	89·2	73·8	91·8	67·9
	II	1007·3	82·5	76·5	..	..	..	..
November	I	1014·4	70·2	66·0	84·2	63·7	87·2	57·7
	II	1011·1	77·3	68·8	..	..	..	..
December	I	1016·8	61·2	57·8	79·4	55·0	81·7	50·4
	II	1012·9	71·9	63·1	..	..	..	..
Annual Total or Mean	I	1008·4	75·9	72·0	88·5	70·2	104·2	48·5
	II	1004·9	82·8	73·9	..	..	..	..
No. of Years	I	50	50	50	60	60	60	60
	II	..	5	5	..	..	..	..

Month		Air Temperature						Humidity		Cloud Amount	
		Extreme									
		Highest recorded °F	Date and year		Lowest recorded °F	Date and year		Relative Humidity %	Vapour Pressure mb.	All clouds Tenths	Low clouds of sky
January	I	89	23	1939	44	20	1899	85	14·6	2·3	0·6
	II	..			..			51	14·3	2·1	0·5
February	I	98	28	1896	46	10	1905	82	17·0	2·9	2·0
	II	..			..			48	15·4	3·1	1·8
March	I	104	31	1934	50	5	1898	79	22·9	2·8	2·3
	II	..			..			45	19·0	3·0	1·4
April	I	107	28	1936	61	2	1905	76	28·7	3·8	1·6
	II	..			..			48	24·3	4·0	1·7
May	I	108	12	1935	65	3	1887	77	31·4	5·2	4·4
	II	..			..			68	30·9	6·1	3·5
June	I	111	1	1924	70	3	1900	82	32 9	7·6	5·2
	II	..			..			78	33·0	8·3	4·1
July	I	98	1	1920	73	9	1940	86	32·9	8·7	6·0
	II	..			..			82	33·3	8·5	5·3
August	I	96	10	1923	74	22	1935	88	33·0	8·4	5·6
	II	..			..			81	32·9	8·4	4·9
September	I	97	3	1939	72	28	1940	86	32·6	7·1	4·1
	II	..			..			80	32·3	7·8	4·2
October	I	96	7	1938	63	27	1904	85	28·5	3·8	2·2
	II	..			..			75	28·2	5·1	2·8
November	I	92	6	1940	51	22	1883	79	20·1	2·3	0·8
	II	..			..			63	20·0	3·2	1·1
December	I	87	9	1940	45	24	1910	80	14·7	1·7	0·5
	II	..			..			59	15·6	1·9	0·4
Annual Total or Mean	I	111		..	44		..	82	25·8	4·7	2·9
	II	..		..	..		..	65	24·9	5·1	2·6
No. of Years	I	60		..	60		..	50	50	50	50
	II	..		..	..		..	5	5	5	5

WEST BENGAL PLAIN DIVISION

STATEMENT O.10—contd.

Month		Rainfall						
		Mean monthly total in.	Mean No. of rainy days	Total in wettest month with year in.	Total in driest month with year in.	Heaviest fall in 24 hours in.	Date and year	Mean wind speed m.p.h.
January	I	0·37	0·8	2·09	0	1·67	22 1906	2·0
	II	..	..	1921	..	..		..
February	I	1·17	1·8	7·96	0	3·18	18 1906	2·6
	II	..	..	1906	..	..		..
March	I	1·36	2·3	6·27	0	2·75	23 1907	3·5
	II	..	..	1920	..	..		..
April	I	1·75	3·0	6·11	0	4·23	19 1918	4·9
	II	..	..	1902	..	..		..
May	I	5·49	6·9	17·11	0·42	6·15	26 1893	5·0
	II	..	..	1893	1935	..		..
June	I	11·69	13·2	31·15	1·60	11·95	18 1908	4·3
	II	..	..	1913	1905	..		..
July	I	12·81	17·5	25·37	4·53	7·23	28 1905	3·7
	II	..	..	1926	1895	..		..
August	I	12·92	18·0	26·50	4·82	9·96	24 1888	3·4
	II	..	..	1885	1894	..		..
September	I	9·95	13·2	45·55	2·21	14·53	20 1900	2·8
	II	..	..	1900	1938	..		..
October	I	4·48	6·2	14·62	0	6·78	15 1882	2·1
	II	..	..	1916	..	..		..
November	I	0·81	1·1	8·89	0	3·26	2 1932	1·9
	II	..	..	1932	..	..		..
December	I	0·18	0·3	2·54	0	2·09	5 1883	1·9
	II	..	..	1883	..	..		..
Annual Total or Mean .	I	62·98	84·3	98·48	35·79	14·53	..	3·2
	II	..	..	1893	1935	..	..	..
No. of Years	I	60	60	60	60	60	..	60
	II	..	..	..	..	..	..	..

Month		Weather Phenomena*					
		No. of days with					
		Precipitation ·01" or more	Thunder	Hail	Dust storm	Squall	Fog
January	I	3	1·0	0	0	0·8	9
	II	..	..	..	..	..	..
February	I	4	2	0	0	1·5	7
	II	..	..	..	..	..	..
March	I	3	5	0·1	0·2	3	3
	II	..	..	..	..	..	..
April	I	5	7	0	0·1	4	0.1
	II	..	..	..	..	..	..
May	I	9	11	0·1	0	7	0
	II	..	..	..	..	..	..
June	I	17	15	0	0	7	0
	II	..	..	..	..	..	..
July	I	23	12	0	0	4	0
	II	..	..	..	..	..	..
August	I	23	13	0	0	3	0
	II	..	..	..	..	..	..
September	I	18	17	0	0	3	0·1
	II	..	..	..	..	..	..
October	I	9	7	0	0	5	0·3
	II	..	..	..	..	..	..
November	I	1·0	0·4	0	0	0·1	2
	II	..	..	..	..	..	..
December	I	0·5	0·1	0	0	0·1	4
	II	..	..	..	..	..	..
Annual Total or Mean .	I	115	91	0·2	0·3	39	25
	II	..	..	..	..	..	..
No. of Years	I	10	10	10	10	10	10
	II	..	..	..	..	..	..

*Frequencies above 2·0 are given only in whole numbers.

WEST BENGAL PLAIN DIVISION

STATEMENT O.10—contd.

Month		Wind												
		Number of days with wind force				Percentage number of days of wind from								
		8 or more	4-7	1-3	0	N	NE	E	SE	S	SW	W	NW	Calm
January	I	0	0	14	17	26	8	3	2	4	5	5	11	35
	II	0	0	15	16	14	0	1	3	3	5	4	18	53
February	I	0	0	15	13	17	9	4	3	7	14	9	11	25
	II	0	0	21	7	14	3	3	7	8	11	11	20	28
March	I	0	0	25	6	6	3	3	6	20	34	8	8	13
	II	0	0	26	5	6	1	1	3	22	29	8	15	15
April	I	0	1	26	3	2	2	4	8	35	42	4	2	2
	II	0	1	26	3	3	0	0	3	35	38	6	3	11
May	I	0	1	27	3	2	3	10	14	37	26	3	1	3
	II	0	2	27	2	1	3	9	13	37	28	2	3	5
June	I	0	0	26	4	2	3	13	17	32	25	4	2	3
	II	0	1	27	2	1	3	7	23	39	18	1	3	5
July	I	0	0	28	3	1	3	15	19	25	26	8	2	2
	II	0	0	28	3	1	1	3	17	37	29	3	0	8
August	I	0	1	25	5	2	4	16	19	25	22	7	3	2
	II	0	0	27	4	1	2	4	18	33	25	4	1	12
September	I	0	0	22	8	3	4	16	20	21	20	8	4	5
	II	0	0	21	9	2	0	5	12	19	26	2	4	30
October	I	0	0	19	12	18	9	10	8	8	14	10	10	15
	II	0	0	16	15	9	3	6	8	10	8	1	5	50
November	I	0	0	16	14	41	10	4	2	1	2	5	14	21
	II	0	0	9	21	13	2	1	1	1	1	0	12	70
December	I	0	0	21	10	42	7	1	1	1	2	4	15	27
	II	0	0	9	22	16	1	0	0	1	0	1	12	70
Annual Total or Mean	I	0	3	264	98	13	5	8	10	18	19	6	7	13
	II	0	4	252	109	7	2	3	9	20	18	4	8	29
No. of Years	I	5				27								
	II	5				5								

Month		Cloud										
		Number of days with cloud amount (all clouds)					No. of days with Low cloud amount					
		0	T-3	4-6	7-9	10 over-cast	0	T-3	4-6	7-9	10	Fog 10
January	I	19	6	2	3	1	25	2	1	1	1	1
	II	16	8	3	3	1	27	2	1	1	0	0
February	I	12	5	2	4	5	17	3	2	4	2	0
	II	9	9	3	4	3	15	8	2	2	1	0
March	I	11	6	6	5	3	17	5	5	3	1	0
	II	12	8	4	5	2	18	9	3	1	0	0
April	I	9	8	5	6	2	17	7	3	3	0	0
	II	7	8	5	6	4	15	11	2	1	1	0
May	I	1	5	6	11	8	5	7	8	10	1	0
	II	3	7	4	7	10	7	11	6	4	3	0
June	I	0	2	2	16	10	3	5	10	11	1	0
	II	0	2	3	11	14	4	11	7	5	3	0
July	I	0	0	1	16	14	1	5	11	12	2	0
	II	0	1	4	13	13	1	7	12	7	4	0
August	I	0	0	3	13	15	2	5	10	12	2	0
	II	0	1	4	11	15	1	9	14	5	2	0
September	I	1	3	6	11	9	5	9	9	7	0	0
	II	1	2	5	8	14	3	11	9	5	2	0
October	I	7	10	3	7	4	12	9	5	5	0	0
	II	5	9	4	5	8	10	10	7	3	1	0
November	I	13	8	3	4	2	24	2	1	2	1	0
	II	9	11	3	3	4	22	5	1	1	1	0
December	I	18	6	2	3	2	27	1	1	1	1	0
	II	17	8	2	2	2	28	2	1	0	0	0
Annual Total or Mean	I	91	59	41	99	75	155	60	66	71	12	1
	II	79	74	44	78	90	151	96	65	35	18	0
No. of Years	I	5					5					
	II	5					5					

STATEMENT O.10—concld.

Month		Visibility*				
		Number of days with visibility				
		Up to 1,100 yds.	1,100 yds. to 2·5 mls.	2·5 to 6·25 mls.	6·25 to 12·5 mls.	Over 12·5 mls.
January	I	9	21	0·5	0	0
	II	0	22	9	0	0
February	I	7	17	4	0	0
	II	0	6	22	0	0
March	I	1·1	16	13	1·4	0
	II	0·1	4	25	1·6	0
April	I	0	8	21	1·3	0
	II	0	4	25	1·4	0
May	I	0	5	24	2	0
	II	0	5	25	0	0
June	I	0·1	6	20	4	0
	II	0	4	24	1·4	0
July	I	0	8	21	2	0
	II	0·1	7	22	2	0
August	I	0·4	7	22	1·6	0
	II	0·1	5	23	3	3
September	I	0·1	8	16	6	0
	II	0	8	19	3	0
October	I	0·3	20	10	0·7	0
	II	0·3	13	15	3	0
November	I	2	26	2	0	0
	II	0·1	21	8	0·5	0
December	I	6	23	1·6	0	0
	II	0	28	3	0	0
Annual Total or Mean . .	I	26	165	155	19	0
	II	0·7	127	220	16	0
No. of Years	I	8				
	II	8				

*Frequencies above 2·0 are given only in whole numbers.

STATEMENT O.11

Climatological table for Asansol

Station Asansol. Lat. 23° 41′ N. Long. 86° 57′ E. Height above M. S. L. 414 feet
Based on observations from 1916 to 1940

Month		Pressure	Air Temperature					
					Mean (of)		Mean (of)	
		Mean at station level mb.	Mean Dry Bulb °F.	Mean Wet Bulb °F.	Daily Max. °F.	Daily Min. °F.	Highest in the month °F.	Lowest in the month °F.
January	I	1002·6	59·5	54·3	77·8	52·7	85·6	45·3
	II	998·9	75·5	59·8	...	..	..	..
February	I	1000·3	64·9	58·5	82·3	57·4	91·2	50·0
	II	996·5	78·8	62·5	..	..	..	..
March	I	997·0	75·4	63·6	93·8	65·9	103·0	57·3
	II	992·8	90·1	65·3	..	..	..	..
April	I	993·5	84·1	72·0	101·8	74·2	109·3	66·0
	II	988·8	99·0	70·1	..	..	..	..
May	I	989·9	85·9	77·5	102·2	78·2	111·8	69·9
	II	985·4	94·0	76·2	..	..	..	..
June	I	985·9	85·1	79·5	97·9	79·1	109·9	73·3
	II	982·3	88·6	78·9	..	..	..	..
July	I	984·8	82·1	79·3	89·8	77·8	96·4	74·7
	II	981·8	84·8	79·6	..	..	..	..
August	I	987·1	81·7	78·9	88·8	77·5	94·1	74·4
	II	983·9	84·5	79·4	..	..	..	..
September	I	991·3	82·1	78·9	89·9	77·0	94·7	73·2
	II	987·8	85·1	78·9	..	..	..	..
October	I	997·2	77·9	73·2	89·0	70·8	93·7	62·4
	II	993·5	83·6	74·5	..	..	..	..
November	I	1000·9	68·0	62·5	83·9	60·0	88·9	52·5
	II	997·1	80·2	66·3	..	..	..	..
December	I	1003·0	60·7	55·6	78·6	53·4	88·7	47·2
	II	999·3	74·4	60·6	..	..	..	..
Annual Total or Mean . .	I	994·5	75·6	69·5	89·7	68·7	112·9	44·8
	II	990·7	84·9	71·0	..	..	..	..
No. of Years	I	20	20	20	20	20	20	20
	II	..	5	5	..	..	..	..

WEST BENGAL PLAIN DIVISION

STATEMENT O.11—contd.

Month		Air Temperature				Humidity		Cloud amount	
		Extreme							
		Highest recorded °F.	Date and year	Lowest re-corded °F.	Date and year	Relative humidity %	Vapour pressure mb.	All Clouds Tenths	Low Clouds of sky
January	I	89	23 1939	42	19 1934	69	12·1	2·4	0·8
	II	..		..		35	10·4	2·1	1·0
February	I	94	24 1930	45	2 1934	66	13·4	2·6	2·4
	II	..		..		37	11·9	3·8	2·9
March	I	107	26 1929	52	1 1923	49	14·5	2·2	1·6
	II	..		..		22	9·8	3·0	2·1
April	I	113	30 1938	62	3 1940	53	20·6	2·8	1·5
	II	..		..		20	11·8	3·5	2·6
May	I	116	23 1921	65	2 1927	67	27·8	3·9	4·6
	II	..		..		45	23·0	5·9	5·3
June	I	117	16 1926	69	2 1922	77	31·3	6·6	5·9
	II	..		..		66	29·0	8·4	6·8
July	I	104	1 1926	74	10 1940	88	32·4	8·5	7·3
	II	..		..		80	31·7	9·1	7·6
August	I	99	31 1932	71	22 1933	88	32·4	8·2	6·7
	II	..		..		80	31·8	9·0	7·1
September	I	97	1 1932	70	2 1926	86	31·9	6·5	4·5
	II	..		..		76	30·7	8·1	5·8
October	I	98	7 1932	59	29 1938	79	25·7	3·6	2·3
	II	..		..		65	24·7	5·0	3·6
November	I	93	1 1930	47	19 1926	72	16·8	2·6	1·1
	II	..		..		45	15·5	3·1	1·4
December	I	87	13 1926	44	29 1937	71	12·9	1·7	1·1
	II	..		..		41	11·8	2·2	0·8
Annual Total or Mean . .	I	117	..	42	..	72	22·6	4·3	3·3
	II	..	..	..	..	51	20·1	5·3	3·9
No. of Years	I	20	..	20	..	20	20	20	5
	II	..	..	..	..	5	5	5	5

Month		Rainfall						Mean wind speed
		Mean Monthly total in.	Mean No. of rainy days	Total in wettest month with year in.	Total in driest month with year in.	Heaviest fall in 24 hours in.	Date and year	m.p.h.
January	I	0·67	1·4	2·97	0	1·35	15 1935	3·3
	II	..	..	1919	..	..		..
February	I	1·25	2·5	4·38	0	1·71	23 1927	3·6
	II	..	..	1923	..	..		..
March	I	0·82	1·8	6·56	0	0·93	1 1940	4·2
	II	..	..	1920	..	..		..
April	I	0·83	1·8	3·49	0	1·81	22 1925	4·9
	II	..	..	1925	..	..		..
May	I	2·93	4·4	12·37	0·02	5·00	29 1938	5·7
	II	..	..	1917	1916	..		..
June	I	9·51	11·7	26·71	2·67	5·50	30 1936	5·3
	II	..	..	1922	1931	..		..
July	I	13·69	17·7	20·69	2·25	6·60	2 1931	4·9
	II	..	..	1931	1918	..		..
August	I	13·28	17·0	23·26	8·10	7·45	12 1935	4·7
	II	..	..	1940	1920	..		..
September	I	8·25	10·7	19·60	1·90	4·14	3 1926	4·0
	II	..	..	1926	1923	..		..
October	I	4·34	5·5	14·48	0·31	3·90	18 1929	3·0
	II	..	..	1917	1918	..		..
November	I	0·57	1·0	6·09	0	3·90	20 1930	3·1
	II	..	..	1930	..	..		..
December	I	0·18	0·4	1·64	0	1·17	17 1929	3·3
	II	..	..	1929	..	..		..
Annual Total or Mean . .	I	56·32	75·9	84·06	44·26	7·45	..	4·2
	II	..	..	1922	1932	..	..	..
No. of Years	I	25	25	25	25	25	..	10
	II	..	..	..	..	..	..	..

STATEMENT 0.11—contd.

Month		Weather Phenomena*					
		No. of days with					
		Precipitation ·01" or more	Thunder	Hail	Dust storm	Squall	Fog
January	I	3	0·7	0	0	0	2
	II	..	..	..	..	..	..
February	I	4	3	0	0	0	0·1
	II	..	..	..	..	..	..
March	I	3	3	0·2	0	0·1	0·3
	II	..	..	..	..	..	..
April	I	3	5	0·2	0·9	0·1	0·2
	II	..	..	..	..	..	..
May	I	6	9	0	1·2	0·3	0·2
	II	..	..	..	..	..	..
June	I	16	15	0	0·7	0·2	0
	II	..	..	..	..	..	..
July	I	25	13	0	0	0·6	0
	II	..	..	..	..	..	..
August	I	24	13	0	0	0·7	0
	II	..	..	..	..	..	..
September	I	15	12	0	0	0·1	0
	II	..	..	..	..	..	..
October	I	8	4	0	0·1	0·3	1·0
	II	..	..	..	..	..	..
November	I	0·6	0	0	0	0	0.9
	II	..	..	..	..	..	..
December	I	0·7	0	0	0	..	1·4
	II	..	..	..	..	..	..
Annual Total or Mean	I	108	78	0·4	3	2	6
	II	..	..	..	..	..	..
No. of Years	I	10	10	10	10	10	10
	II	..	..	..	..	..	..

Month		Wind												
		No. of days with wind force				Percentage No. of days of wind from								
		8 or more	4-7	1-3	0	N	NE	E	SE	S	SW	W	NW	Calm
January	I	0	0	27	4	17	1	2	1	0	1	25	39	14
	II	0	0	28	3	22	3	3	3	1	2	15	41	10
February	I	0	0	21	7	14	6	4	4	1	4	18	27	24
	II	0	0	26	2	13	4	7	4	1	6	19	39	8
March	I	0	0	28	3	10	3	5	6	4	8	25	32	8
	II	0	1	29	1	9	2	3	1	3	6	35	37	1
April	I	0	0	27	3	6	1	7	6	6	13	29	22	9
	II	0	2	27	1	7	3	6	5	3	4	34	37	1
May	I	0	1	29	1	3	8	38	25	12	4	6	3	3
	II	0	2	28	1	4	15	35	16	6	5	8	7	4
June	I	0	1	29	0	5	7	29	23	11	9	9	7	1
	II	0	2	27	1	3	9	37	23	4	3	10	10	3
July	I	0	1	29	1	5	6	23	21	12	8	12	8	5
	II	0	1	29	1	5	12	30	17	8	6	10	7	4
August	I	0	1	29	1	6	10	24	15	10	12	12	8	4
	II	0	0	30	1	6	17	30	16	6	6	8	8	3
September	I	0	0	27	3	4	9	17	13	8	8	16	15	9
	II	0	1	27	2	5	13	25	23	4	3	10	10	7
October	I	0	0	28	3	14	10	10	6	3	2	17	28	10
	II	0	0	27	4	12	16	16	13	3	2	9	17	13
November	I	0	0	29	1	17	1	0	1	1	1	31	44	4
	II	0	0	23	7	29	8	3	0	1	1	8	29	22
December	I	0	0	29	2	16	0	0	1	1	1	29	46	5
	II	0	0	28	3	32	5	8	3	1	0	8	41	8
Annual Total or Mean	I	0	4	332	29	10	5	13	10	6	6	19	23	8
	II	0	9	329	27	12	9	17	10	3	4	15	24	7
No. of Years	I	5				5								
	II	5				5								

* Frequencies about 2·0 are given only in whole numbers.

WEST BENGAL PLAIN DIVISION

STATEMENT O.11—concld.

Month		Cloud										
		No. of days with cloud amount (all clouds)					No. of days with low cloud amount					
		0	T-3	4-6	7-9	10 over-cast	0	T-3	4-6	7-9	10	Fog 10
January	I	19	4	4	3	1	27	1	1	2	0	0
	II	18	5	4	3	1	25	2	2	2	0	0
February	I	13	4	4	5	2	17	3	3	3	2	0
	II	10	5	5	6	2	12	6	4	4	2	0
March	I	17	4	3	5	2	22	2	4	2	1	0
	II	15	5	4	6	1	18	5	4	4	0	0
April	I	15	6	3	4	2	22	2	2	2	2	0
	II	11	5	5	7	2	16	4	4	5	1	0
May	I	5	7	5	8	6	10	6	4	7	4	0
	II	3	5	8	9	6	4	8	8	8	3	0
June	I	1	2	5	14	8	6	2	5	12	5	0
	II	0	2	3	13	12	4	2	8	8	8	0
July	I	0	0	1	17	13	1	5	4	12	9	0
	II	0	0	0	16	15	0	4	9	10	8	0
August	I	0	0	1	16	14	1	2	9	15	4	0
	II	0	0	1	16	14	0	1	13	11	6	0
September	I	2	4	4	12	8	9	4	6	7	4	0
	II	0	3	3	13	11	1	6	11	8	4	0
October	I	9	8	3	7	4	16	6	4	4	1	0
	II	5	8	5	6	7	7	10	7	4	3	0
November	I	14	7	4	4	1	23	3	2	2	0	0
	II	11	8	6	4	1	18	6	4	1	1	0
December	I	19	6	2	2	2	26	1	1	2	1	0
	II	17	7	3	3	1	25	3	3	0	0	0
Annual Total or Mean	I	114	52	39	97	63	180	37	45	70	33	0
	II	90	53	47	102	73	130	57	77	65	36	0
No. of Years	I	5					5					
	II	5					5					

Month		Visibility*				
		No. of days with visibility				
		Up to 1,100 yds.	1,100 yds to 2·5 mls.	2·5 to 6·25 mls.	6·25 to 12·5 mls.	Over 12·5 mls.
January	I	4	18	8	1·0	0
	II	0	4	25	1·7	0
February	I	1·6	15	11	0·7	0·1
	II	0	1·1	18	6	3
March	I	0·1	16	14	1·1	0·1
	II	0	0·4	19	8	4
April	I	0	11	16	3	0
	II	0·7	21	7	1·6	0
May	I	0	7	22	2	0
	II	0·3	3	19	9	0
June	I	0	5	21	4	0
	II	0·1	4	17	9	0
July	I	0	6	23	2	0
	II	0	3	19	8	1·0
August	I	0	8	21	2	0
	II	0	5	18	8	0·3
September	I	0	7	16	7	0·3
	II	0	4	18	6	1·9
October	I	1·6	16	12	1·0	0·4
	II	0	1·4	22	6	1·9
November	I	1·5	18	10	0·3	0
	II	0	0·1	24	4	1·9
December	I	4	18	9	0	0
	II	0	0·9	24	3	3
Annual Total or Mean	I	13	145	183	24	0·9
	II	1·1	48	230	70	17
No. of Years	I	8				
	II	8				

* Frequencies above 2·0 are given only in whole numbers.

WEST BENGAL PLAIN DIVISION

STATEMENT O.12

Climatological table for Malda

Station Malda. Lat. 25° 02′ N. Long. 88° 08′ E. Height above M. S. L. 103 feet
Based on observations from 1886 to 1940

Month		Pressure	Air Temperature					
					Mean (of)		Mean (of)	
		Mean at station level mb.	Mean Dry Bulb °F	Mean Wet Bulb °F	Daily Max. °F	Daily Min. °F	Highest in the month °F	Lowest in the month °F
January	I	1013·8	58·2	54·0	74·5	50·0	80·4	43·3
	II	1010·2	69·8	60·0	..	..	..	..
February	I	1011·7	63·1	58·4	79·3	54·1	86·9	45·3
	II	1008·1	74·5	62·7	..	..	..	..
March	I	1007·7	72·5	62·0	90·7	61·6	98·9	52·2
	II	1003·7	85·4	66·0	..	..	..	..
April	I	1004·3	81·1	69·5	97·5	71·3	104·5	62·8
	II	999·6	95·2	70·0	..	..	..	..
May	I	1001·6	82·4	76·2	95·0	75·3	105·4	68·3
	II	997·2	89·8	77·5	..	..	..	..
June	I	997·5	83·2	79·4	91·5	78·2	99·2	72·5
	II	994·0	87·2	80·3	..	..	..	..
July	I	996·6	83·0	79·5	89·7	79·0	94·9	74·9
	II	993·6	85·8	80·3	..	..	..	..
August	I	993·8	83·0	79·7	89·1	79·1	93·8	75·9
	II	995·7	85·3	80·3	..	..	..	..
September	I	1002·4	83·0	79·2	89·0	78·3	93·8	73·9
	II	999·1	85·1	79·7	..	..	..	..
October	I	1008·0	79·9	74·8	88·1	72·3	92·2	63·8
	II	1004·7	82·9	75·8	..	..	..	..
November	I	1011·9	69·9	64·9	82·3	61·1	86·8	53·5
	II	1008·4	76·3	68·9	..	..	..	..
December	I	1014·3	60·4	56·3	75·8	52·5	80·2	45·4
	II	1010·8	69·8	62·6	..	..	..	..
Annual Total or Mean	I	1005·3	75·0	69·5	86·9	67·7	107·0	42·5
	II	1002·1	82·3	72·0	..	..	..	..
No. of Years	I	30	30	30	25	25	25	25
	II	..	5	5	..	..	..	..

Month		Air Temperature						Humidity		Cloud amount	
		Extreme									
		Highest recorded °F	Date and year		Lowest recorded °F	Date and year		Relative Humidity %	Vapour pressure mb.	All clouds Tenths	Low clouds of sky
January	I	84	31	1902	40	16	1937	75	13·3	1·3	0·1
	II	..			..			53	13·1	1·4	0·1
February	I	93	29	1896	39	3	1905	74	14·1	1·8	1·0
	II	..			..			50	13·9	2·7	0·9
March	I	106	27	1909	45	5	1898	52	16·1	1·4	0·7
	II	..			..			33	12·7	1·7	0·2
April	I	109	18	1896	57	1	1907	53	22·5	2·4	0·9
	II	..			..			26	13·7	2·1	0·3
May	I	110	8	1909	65	8	1908	74	28·5	4·3	4·2
	II	..			..			58	26·4	4·6	1·3
June	I	109	5	1935	68	1	1907	84	32·5	6·3	5·5
	II	..			..			74	32·0	6·9	2·3
July	I	100	5	1897	70	21	1906	85	33·5	7·2	6·6
	II	..			..			78	32·9	7·5	2·7
August	I	98	9	1933	73	18	1899	86	33·4	7·0	6·0
	II	..			..			80	32·8	7·6	2·8
September	I	97	13	1896	71	30	1940	84	32·8	5·2	3·7
	II	..			..			70	31·9	6·8	2·5
October	I	96	4	1932	59	31	1908	78	27·7	2·2	1·7
	II	..			..			71	27·0	3·2	1·3
November	I	92	1	1896	47	30	1934	75	19·4	1·0	0·2
	II	..			..			67	20·5	1·4	0·1
December	I	83	1	1896	41	21	1896	76	14·2	0·8	0·2
	II	..			..			65	16·1	1·2	0·1
Annual Total or Mean	I	110		..	39		..	75	24·0	3·4	2·6
	II	..		..	..		..	61	22·7	3·9	1·2
No. of Years	I	25		..	25		..	9	30	30	5
	II	..		..	..		..	5	5	5	5

WEST BENGAL PLAIN DIVISION

STATEMENT 0.12—contd.

Month		Rainfall						
		Mean monthly total	Mean No. of rainy days	Total in wettest month with year	Total in driest month with year	Heaviest fall in 24 hours	Date and year	Mean wind speed
		in.		in.	in.	in.		m.p.h.
January	I	0·54	0·9	3·84	0	2·68	31	2·7
	II	..	..	1889	..	..	1889	..
February	I	0·83	1·7	3·27	0	1·62	19	2·9
	II	..	..	1937	..	..	1934	..
March	I	0·77	1·3	4·86	0	2·12	6	3·7
	II	..	..	1940	..	..	1926	..
April	I	1·18	2·0	9·87	0	2·48	29	5·0
	II	..	..	1925	..	..	1892	..
May	I	4·60	5·6	18·19	0·26	7·68	30	5·6
	II	..	..	1938	1916	..	1938	..
June	I	9·82	11·5	22·09	1·39	5·07	30	5·4
	II	..	..	1918	1888	..	1928	..
July	I	11·48	14·8	24·84	3·84	6·38	21	5·3
	II	..	..	1919	1897	..	1919	..
August	I	11·02	14·6	34·55	2·97	7·40	26	4·7
	II	..	..	1918	1927	..	1918	..
September	I	11·52	11·6	28·77	3·58	8·00	1	3·9
	II	..	..	1916	1914	..	1917	..
October	I	4·35	4·3	21·11	0	6·84	23	2·8
	II	..	..	1917	..	..	1894	..
November	I	0·45	0·7	4·00	0	2·53	20	2·4
	II	..	..	1932	..	..	1930	..
December	I	0·07	0·2	1·29	0	1·29	13	2·8
	II	..	..	1913	..	..	1913	..
Annual Total or Mean	I	56·63	69·2	90·79	35·86	8·00	..	3·9
	II	..	..	1918	1908	..		..
No. of Years	I	55	55	55	55	55	..	8
	II	..	..	..	..	..	..	..

Month		Weather Phenomena*					
		No. of days with					
		Precipitation ·01″ or more	Thunder	Hail	Dust storm	Squall	Fog
January	I	1·0	0·3	0	0	0	1·1
	II	..	..	..	..	..	..
February	I	4	1·2	0	0·2	0	0·5
	II	..	..	..	..	..	..
March	I	2	2	0	0·1	0·2	0
	II	..	..	..	..	..	..
April	I	3	4	0·3	0	0·3	0
	II	..	..	..	..	..	..
May	I	8	9	0·1	0·2	0·7	0
	II	..	..	..	..	..	..
June	I	15	12	0	0	0·1	0
	II	..	..	..	..	..	..
July	I	18	6	0	0	0·2	0
	II	..	..	..	..	..	..
August	I	21	8	0	0	0·1	0
	II	..	..	..	..	..	..
September	I	16	11	0	0	0	0
	II	..	..	..	..	..	..
October	I	9	3	0	0	0	0
	II	..	..	..	..	..	..
November	I	0·2	0·1	0	0	0	0·1
	II	..	..	..	..	..	..
December	I	0·5	0·2	0	0	0	0·1
	II	..	..	..	..	..	..
Annual Total or Mean	I	98	57	0·4	0·5	1·6	1·8
	II	..	..	..	..	..	..
No. of Years	I	10	10	10	10	10	10
	II	..	..	..	..	..	..

*Frequencies above 2·0 are given only in whole numbers.

STATEMENT O.12—contd.

Wind

Month		No. of days with wind force				Percentage No. of days of wind from								
		8 or more	4-7	1-3	0	N	NE	E	SE	S	SW	W	NW	Calm
January . .	I	0	0	24	7	11	6	2	1	1	8	18	42	10
	II	0	0	23	8	18	1	1	0	1	1	7	47	25
February . .	I	0	0	24	4	7	6	2	4	6	23	17	24	11
	II	0	0	24	4	15	6	4	1	4	4	15	35	15
March . . .	I	0	0	28	3	6	9	5	11	10	27	12	13	6
	II	0	0	29	2	9	8	8	1	6	4	25	32	6
April . . .	I	0	1	28	1	5	13	15	22	17	16	6	5	3
	II	0	1	28	1	9	5	9	5	7	3	23	34	4
May . . .	I	0	1	30	0	3	17	23	30	13	7	3	3	1
	II	0	1	29	1	3	14	43	14	12	2	2	7	5
June . . .	I	0	0	29	1	3	11	21	36	16	7	2	2	2
	II	0	0	28	2	4	6	33	28	17	4	1	1	5
July . . .	I	0	1	30	0	3	7	20	36	17	8	2	2	3
	II	0	0	30	1	3	4	37	26	19	3	4	1	4
August . . .	I	0	1	29	1	1	9	22	36	16	9	2	1	5
	II	0	0	28	3	2	5	25	25	23	6	3	3	9
September . .	I	0	0	27	3	6	11	15	24	17	14	5	6	3
	II	0	0	26	4	7	6	19	13	21	5	7	7	15
October . .	I	0	0	26	5	12	14	6	13	11	15	5	15	9
	II	0	0	19	12	10	13	9	5	5	5	1	13	39
November . .	I	0	0	25	5	19	18	3	2	1	6	7	37	6
	II	0	0	17	13	8	4	1	0	1	1	13	28	43
December . .	I	0	0	28	3	20	6	1	1	1	3	10	55	4
	II	0	0	22	9	11	0	0	1	1	1	12	47	28
Annual Total or Mean	I	0	4	328	33	8	11	11	18	10	12	7	17	5
	II	0	2	303	60	8	6	16	10	10	3	9	21	16
No. of Years . .	I	5				20								
	II	5				5								

Cloud

Month		No. of days with cloud amount (all clouds)					No. of days with Low cloud amount					
		0	T-3	4-6	7-9	10 over-cast	0	T-3	4-6	7-9	10	Fog 10
January. . .	I	20	7	1	2	1	31	0	0	0	0	0
	II	15	11	2	2	1	31	0	0	0	0	0
February . .	I	13	6	2	2	5	24	1	1	0	2	0
	II	12	8	2	1	5	23	1	2	1	1	0
March . . .	I	19	6	1	2	3	28	2	0	0	1	0
	II	16	9	2	3	1	27	3	1	0	0	0
April . . .	I	14	8	1	4	3	25	2	0	1	2	0
	II	13	10	2	2	3	26	3	1	0	0	0
May . . .	I	2	7	4	5	13	10	5	3	5	8	0
	II	2	14	3	4	8	19	9	1	1	1	0
June . . .	I	0	5	3	8	14	6	5	4	6	9	0
	II	0	7	4	7	12	11	11	4	3	1	0
July . . .	I	0	1	3	11	16	2	5	5	9	10	0
	II	0	6	3	11	11	8	13	5	3	2	0
August . . .	I	0	1	4	11	15	3	6	6	6	10	0
	II	0	4	3	14	10	6	15	5	3	2	0
September . .	I	1	7	4	8	10	9	8	5	3	5	0
	II	0	7	4	9	10	9	11	5	3	2	0
October . .	I	9	12	2	4	4	19	7	1	2	2	0
	II	5	17	2	3	4	19	7	3	1	1	0
November . .	I	15	11	1	3	0	29	1	0	0	0	0
	II	12	15	1	2	0	28	2	0	0	0	0
December . .	I	21	6	1	2	1	30	1	0	0	0	0
	II	17	11	1	1	1	30	1	0	0	0	0
Annual Total or Mean	I	114	77	27	62	85	216	43	25	32	49	0
	II	92	119	29	59	66	237	76	27	15	10	0
No. of Years . .	I	5					5					
	II	5					5					

STATEMENT O.12—concld.

Month		Visibility*				
		No. of days with visibility				
		Up to 1,100 yds.	1,100 yds. to 2·5 mls.	2·5 to 6·25 mls.	6·25 to 12·5 mls.	Over 12·5 mls.
January	I	0·6	25	5	0·3	0
	II	0	10	20	1·0	0
February	I	0·7	9	17	1·7	0
	II	0	0·7	21	5	1·3
March	I	0	2	21	6	11
	II	0	0·9	24	4	2
April	I	0	0·4	15	12	3
	II	0·1	1·1	17	11	1·0
May	I	0	0·5	7	13	10
	II	0	0·7	7	15	8
June	I	0·1	0·7	5	15	9
	II	0·1	0·3	5	13	11
July	I	0	0·9	6	15	9
	II	0·3	4	4	12	15
August	I	0·3	1·4	3	14	12
	II	0	0·6	4	10	16
September	I	0·3	1·9	3	14	11
	II	0	0·5	3	12	14
October	I	0	0·7	3	20	7
	II	0·1	0·4	8	19	4
November	I	0	7	17	6	0·5
	II	0	6	18	6	0·3
December	I	0·1	2·4	7	0	0
	II	0	18	13	0·3	0
Annual Total or Mean	I	2	52	109	117	73
	II	0·6	43	144	108	73
No. of Years	I	8				
	II	8				

*Frequencies above 2·0 are given only in whole numbers.

Forests

71. Even at the end of the nineteenth century the State had heavily wooded areas in Darjeeling, the *terai* and Jalpaiguri Duars, the eastern parts of Cooch Behar (Dinhata and Sadar), in the west of West Dinajpur (Raiganj), in the new alluvium tracts of Malda (Bhaluka, Ratua, Manikchak), the western fringes of Birbhum (Nalhati, Rajnagar, Muhammadbazar, Dubrajpur), the Asansol subdivision of Burdwan, the whole of the western half of Bankura, the land west of the Kasai in Midnapur, and the Sundarbans in 24-Parganas. In addition there were extensive marshes near the confluence of rivers around the fringe of which were fairly dense forests; for instance the area between the Tista and Jaldhaka in Jalpaiguri,

the area between the Tista and Torsa in Cooch Behar, the area between the Mahananda and the Kalindri, between the Tangan and Punarbhaba in Malda, the Hijal and Kalantar *bils* in Murshidabad ; the marshes between the Damodar and the Hooghly in Hooghly, the marshes between the Damodar and the Saraswati in Howrah, the marshes between the Kalighai and the Rupnarayan in Midnapur, and the extensive salty marshes south-east of Calcutta down to the sea. The history of the last hundred years, however, has been a story of steady denudation of forests in Sikkim, Bhutan and Darjeeling hills. The extension of tea in the Darjeeling hills, the *terai* foothills and the Duars has coincided with more frequent and increasingly fearful floods, the last to happen in June 1950 being one of the severest on record.

72. Forests in West Dinajpur and Malda swiftly came under the axe in the twentieth century, owing to a very rapid extension of cultivation in those districts. Destruction of forests went on apace in Birbhum, Murshidabad, Bankura and Midnapur after the beginning of World War I. In the tidal region of the Sundarban forests in 24-Parganas, the special system of land settlement and the building of dykes across the smaller distributaries for the purpose of protecting the crop against the influx of salt water during high tide have resulted in the silting up of many water courses and the destruction of tidal forests. In the course of the last century more than a thousand square miles of tidal forests have been destroyed and practically no forests are left now outside the Reserves. Along with the destruction of forests, the effect of which has certainly been to force down deeper the water table in the denuded areas, and interference with age-long rainfall patterns in districts where previously forests existed, extensive marshes have been subjected to a tightening ring of deforestation and cultivation which has progressively closed in on the heart of the marshy depressions and forced the perennial water in their beds to disappear. The most spectacular and rapid reclamations have occurred in the *tal* area of Malda, the Hijal and Kalantar *bils* of Murshidabad, the extensive marshes of Midnapur, Hooghly, Howrah and 24-Parganas. This process has also served to disturb the water table of the neighbouring areas in the dry months and to deny irrigation and pasture facilities to very large areas. Finally, the need of more food production after the famine of 1943, and the encouragements of the Grow More Food campaign, the governmental fervour of which was put to unholy use by the rapacious landlord and jotedar who contributed their mite all too eagerly before it was possible to raise the alarm to unheeding ears, who gave away wooded and jungly areas in settlement to hungry cultivators, and who delivered the *coup de grace* to several important private forests in the State. This indiscriminate and murderous deforestation created heavy and grievous scars on the face of the country especially in the west where vegetation and turf are scant, the ground comparatively high and non-alluvial, and from where the water and rain tend to run off rapidly toward the east. The effect has been a rude interference with the ecology of that area and rapid disappearance of wild life on earth and in the air. The Conservator General of Forests reports that the western dry districts (Burdwan, Birbhum, Bankura, Midnapur, Nadia and Murshidabad) are deficient in all manner of wild life, as most of what existed in the private forests have been shot, trapped or otherwise killed or driven away. Even in the Sundarbans, legendary home of wild life in the East, animals are now very limited in their range.

73. It is hardly as if stern voices of warning were not raised a sufficiently long time ago. Very few administrators in the Government were as important

as Settlement Officers, and there were few to whose voice of caution the government paid more heed. But on the matter of forests, the Government never seemed to wake up until the Private Forests Act was passed in 1945. The reason perhaps was that the Government had no positive programme to match the growth of population with extension of cultivation by a proper co-ordination of forest management and irrigation. Here is an extract from the Settlement Report of Midnapur of 1917 :

> But the decrease in the cultivated area is the most surprising feature. 130 square miles of this are accounted for in the three thanas of Garhbeta (including part of Chandrakona which was then within it), Salboni and Keshpur, where one would at first sight have expected an extension of cultivation. The explanation is possibly to be found in the extent to which deforestation has taken place. The area covered by jungle, cultivable and uncultivable at the present time in these three thanas, is nearly the same as given in the Revenue Survey figures which show that most of the jungle clearing had been effected at an earlier date. The immediate result of a complete clearance is to render the land fit for cultivation, but in the course of years in an undulating country where the soil is shallow and the unbroken rock very near the surface as is the case in these thanas, the soil, deprived of the binding force of the tree roots, tends to get washed from the slopes into the valleys by the torrential rains. The formation of the soil is due largely to the action of tree roots in breaking up the surface layers of the rock and to the deposit of the leaf mould; the destruction of trees puts a stop to this process and prevents any possibility of new soil taking the place of that which has been washed away, and so the slopes tend to go out of cultivation altogether. How rapidly this mode takes place I have had occasion to observe in the south of Spain in the neighbourhood of the Rio Tinto copper mines; there the whole country-side was covered with forests until the present company started to work the mines on a very large scale and for this purpose cut down the trees to serve as fuel for the smelting of the ore, and the result was that within 30 years the hillsides have been transformed into pure masses of rock on which not a blade of grass can grow. The hills there are steep; so the process was accelerated. But it is highly probable that the course of events in these thanas has been precisely the same. It is in them that one observes most frequently those stretches of absolutely barren land which it would be difficult to account for in a country otherwise heavily wooded on any other supposition than that of deliberate and complete deforestation.

74. Here is another extract from the Settlement Report of Bankura of 1924 :

> The greatest change which has come over this district during the past half century, has been the cutting down of the forests. In other districts, deforestation usually connotes increase in cultivation and a general rise in the economic condition of the people. In Bankura no such fortunate results have been obtained. Although everywhere increase in the land under cultivation is apparent, the district is not supporting a larger population. In fact, the population in 1921 was 2 per cent. less than in 1881. It is true that in the Sadar subdivision, where there has been most cutting down of jungles, there was an increase of 7 per cent. in those 40 years, but this is a very small increase for such a long period, and at the same time the population of Bishnupur subdivision decreased by 18 per cent., which is dreadful to contemplate.

On this observation of the Settlement Officer the Government made the following pious resolution, without any step taken to further it :

> The improvement of the economic position of the district seems to depend on the re-afforestation of the higher plains and the provision of ample irrigation facilities for the remainder.

75. Both Midnapur and Bankura, and the Durgapur and Gopbhum area of Burdwan bear evidence of extreme erosion, leeching, and the total disappearance of humus. It is fortunate that the Forest Department of the Government has decided to apply the private Forests Act vigorously in these areas as a result of which, already large tracts in Midnapur and Burdwan, which until recently bore the most fearful traces of 'rape of the earth', are showing signs of healing up. The following statement, obtained by courtesy of the Conservator General of Forests of the State, shows areas of Reserved, Protected, Unclassed State and Khas forests, and forests owned by Civil Authorities, Corporate Bodies and private individuals, as they stood on 31st March 1951.

STATEMENT O.13

Statement showing area of reserved, protected, unclassed state and khas forests, and forests owned by civil authorities, corporate bodies and private individuals, as they stood on 31st March 1951

Name of Forest Division	Name of Civil District over which the Forest Division extends	Owned by Government									Forest owned by private individuals		
		Owned by and/or under the control of the Forest Department											
				Unclassed State									
		Reserved Forest	Protected Forest	Forest	Land for or under afforestation	Khas Forest	Leased land	Forest owned by Civil Authorities	Total of columns 3 to 9	Forest owned by Corporate Bodies	Forest	Land for or under acquisition by Government for afforestation	Grand totals of Columns 10 to 13
		Sq. mile	Sq. mile	Sq. mile	Sq. mile	Sq. mile	Sq. mile	Sq. mile	Sq. mile	Sq. mile	Sq. mile	Sq. mile	Sq. mile
1	2	3	4	5	6	7	8	9	10	11	12	13	14
NORTHERN CIRCLE													
Darjeeling	Darjeeling	113	1	..	..	..	..	..	114	16	1	..	131
Kalimpong	Darjeeling	226	..	..	..	..	..	..	226	..	..	..	226
Kurseong	Darjeeling	112	..	..	..	..	..	..	112	..	18	..	130
Total Darjeeling District		451	1	..	..	..	..	..	452	16	19	..	487
Jalpaiguri	Jalpaiguri	165	..	..	..	6	..	..	171	..	77	..	248
Buxa	Jalpaiguri	267	..	..	..	2	..	..	269	8	..	..	277
Cooch Behar (part)	Jalpaiguri	137	..	..	..	..	..	..	137	..	..	..	137
Total Jalpaiguri District		569	..	..	..	8	..	..	577	8	77	..	662
Cooch Behar (balance)	Cooch Behar	24	..	..	..	..	..	..	24	..	..	..	24
TOTAL NORTHERN CIRCLE		1,044	1	..	..	8	..	..	1,053	24	96	..	1,173
SOUTHERN CIRCLE													
24-Parganas	24-Parganas	1,630	..	..	..	..	1,207	1·5	2,838·5	..	11	..	2,849·5
Central	Nadia	..	..	..	1	..	..	..	1	..	..	0·26	1·26
	Murshidabad	..	..	..	..	..	..	..	..	0·02	1	..	1·02
	Bangaon Sub-Division of 24-Parganas District	..	..	..	..	..	..	..	..	..	..	..	..
Midnapur	Midnapur	..	..	1	3	..	..	1·5	5·5	..	500	3·09	508·59
Bankura	Bankura	..		..	..	..	..	..	..	..	446	1·83	447·83
Burdwan	Burdwan	..	..	..	..	..	..	..	..	25	90	1·60	116·60
	Birbhum	..	..	..	..	..	..	..	..	0·11	50	..	50·11
	Hooghly	..	..	..	..	..	..	..	..	..	4	..	4
Malda	Malda	..	..	..	..	..	..	..	..	..	17	2·05	19·05
	West Dinajpur	..	..	..	..	..	..	..	..	..	2	..	2
TOTAL SOUTHERN CIRCLE		1,630	..	1	4	..	1,207	3	2,845	25·13	1,121	8·83	3,999·96
GRAND TOTAL (WEST BENGAL).		2,674	1	1	4	8	1,207	3	3,898	49·13 or 49	1,217	8·83 or 9	5,172·96 or 5,173

Vegetation

76. Darjeeling and Sikkim constitute the epitome of the vegetation of the State and the principal trees, etc., according to J. D. Hooker and other authorities are as follows: (1) From 12,000 to 10,000 feet above the sea level are found firs (Abies Wabbiana), dwarf rhododendron, and several other varieties of rhododendron; juniper, holly, arboreous rhododendron, red-currant bushes, cherry, pear, Daphne or paper tree, Potentilla, creeping raspberry, Hypericum, Ranunculus, Geranium, Veronica, Polyanthus, buff and lilac primrose, violet, dock, Aconitum, Palmatum, or *bis* plant, from the root of which a deadly poison is extracted; dwarf chhim bamboo, iris, blue and white anemone, Arisœma, balsam, heart's-ease, carex moss, lichens, etc. (2) From 10,000 to 9,000 feet are found the oak, chestnut, magnolia, arboreous rhododendron, Michelia or Champa, olive, fig, laurel, barberry, maple, nettle, lily of the valley, rue, rhubarb, Andromeda, Celastrus, white rose, etc. (3) At a height of from 9,000 to 8,000 feet are found the magnolia, maple, rhododendron, oak, laurel, lime, dogwood, Vivernum, Hydrangea, Heliongia, ginseng, Symplocus, Celastrus and

Vaccinium. (4) From 8,000 to 6,500 feet are found the elder, peach, oak, chestnut, maple, alder, Michelia, olive, walnut, tun, Hydrangea, birch, holly, Erythrina, magnolia, all the English kinds of flowers, rue, three kinds of raspberry, strawberry, rhubarb, potato, Hypericum, many kinds of Polygona, which forms the principal underwood of Darjeeling ; wild ginger, Osbeckia, bramble, Thunbergia, and wormwood. (5) From 6,500 to 4,000 feet are found the following : alder, oak, maple, birch, acacia, Dalbergia, Terminalia, tree fern, plantain, wild vine, Bignonia, holly, cryptomaria Japonica, elder, cherry, olive, Hydrangea, pear, pepper, Menisperana, Heliongia, pendulous mosses, lichens, arums of many kinds, Arisœma, Calami or rattan, Caryota palm, Aquilaria, Myrsine, Embelia, Ardisia, and Sonneratia. 5,000 feet is about the highest limit of rice cultivation ; barley, two species of buckwheat, *mahua*, Indian corn, yam, *brinjal*, *bhanj*, fennel, cummin, mint and rue. (6) From 4,000 to 1,000 feet are found Gordonia, pandamus, *sal*, *tun*, Bombax or cotton tree, banian, fig, orange, peach, pine (Pinus longifolia), banana, lemon, wormwood twelve feet in height, etc. (7) From 1,000 feet down to the plains are figs of five kinds, dates ; wallichia, caryotides, cycas pectinata, twelve kinds of bamboo, Phylanthus emblica, Grislea, Marlea, Sterculia, Trophis, *Sisu*. Butea. Mimosa, catechu, Rothera, Terebin thaceae, Symplocus, climbing leguminosa, cucurbitaceae, wild mulberry, three kinds of nettle, Boehmeria, Euphorbia, turmeric, ginger, many kinds of grass, some twenty feet in height, orchids, fern, Rondeletia, Randia, etc. In the plains or Siliguri, the forest trees principally met with are *sal*, *sisu*, *sisun*, and *chilauni*. The plains proper has perennial turf. Except in the extreme north the forests are often mixed with reedy grasses, which are sometimes replaced by savannahs. The river beds are wide and often bare. East of the Bhagirathi the country is for the most part a half-aquatic rice plain, with patches of jungle or river banks, and shrubberies of semi-spontaneous species. On the raised ground found near habitations and roadways the marshes, pools, and sluggish streams are filled with water plants. On sandy or gravelly soils, the *sal* is the typical tree, while in marshy tracts the *gab* and other like species are found. The *barui*, the babla, and cane jungles are frequent. The Forest Department has acclimatised a large number of foreign species, while the *segun* or teak still remains the most valuable tree. The fruit trees are mainly mango, jack, the *jam*.

Timber

77. There is quite a variety of timbers in West Bengal used for agricultural and household work. Among the most prominent are the Acacia arabica (*babul*), Adina cordifolia (*haldu*), Albizzia procera (white *siris*), Anisoptera glabra (*kaunghmu*), Anthocephalus cadamba (*Kadam*), Artocarpus chaplasha (*chaplash*), Betula alnoides (Indian birch), Bischofia javanica (Bishop wood), Bombax malabaricum (*semul*), Bridelia retusa (*Kashi*), Canarium strictum (*dhup*). Carapa Moluccensis (*Pussur*), Castanopsis hystrix (Indian chestnut), cedrela toona (*tun*), Cedrus deodara (*deodar*), chukrasia tabularis (*chickrassi*), cinnamomum Spp (cinnamon), Dalbergia Sissoo (*Sissoo*), Dillenia Spp (*dillenia*), dipterocarpus Spp (*Gurjun, jarul, Hollock*), Duabanga sonneratioides (*lampati*), Gmelina arforea (*gamari*), Heritiera fomes (*Sundri*), Hopea odorata (*thingan*), Hymenodictyon excelsum (*Kuthan*), Lagerstroemia flos-reginal (*jarul*), Lagerstroemia parviflora (*lendi*), Launea grandis (*Jhingan*), mangifera indica (mango), Michelia Spp (*champ*), Phoebe hainesiana (bonsum), Picea morinda (spruce), Schima wallichii (*chilauni*), Shorea robusta (*sal*), Tectonia grandis (teak)), Terminalia myriocarpa (*hollock*), Tetrameles

midiflora (*Baing*). The cocoanut palm, the Indian Palm, and the areca palm are very useful house-building and bridge-making trunks. In the Sundarbans the *Balai, Bhaila, Bhara Bonjam, Chhaila Dabur, Damal, Jhau, Kenkti, Khalsi, Pancheoli, Singra, Sinj, Sondal* are extracted for firewood, while *Dal Karamcha* is used for charcoal, and *Garan, Geoa, Hental, Kankra, Karai, Keora, Kirpa, Loha Kaera, Pasur* are used for building purposes.

78. The State is fairly rich in medicinal plants in Darjeeling, Jalpaiguri, Cooch Behar, Birbhum, Bankura, Midnapur, Nadia and the Sundarbans. Space will not permit even a brief account of these plants but Midnapur, Bankura and Birbhum in the West Bengal Plain and the three Himalayan districts appear to be specially rich.

Forest products

79. The principal jungle products found in Darjeeling District are rhubarb, Aconitum, Palmatum, *marjit* which yields a red dye, India rubber, *pangya,* a root with medicinal properties, Deh (Daphne), a plant from the bark of which a paper is made by the Nepalis, cardamoms, beeswax, *punfa* (a thistle which produces a strong silky fibre), and *sishu* (another thistle from which excellent cloth can be manufactured). The jungle products of the *terai* are lac; *adra,* from the fibres of which ropes are made; *dar haldi,* from the roots of which a red dye is extracted. Orchids and ferns also possess a marketable value. In Jalpaiguri with the exception of a medicinal drug, called *jungle chireta,* and some lac and beeswax, there is little or no trade in forest products. A large collection of indigenous drugs are made from forest plants in Cooch Behar. Lac used to be extensively cultivated in *barui* trees in Malda but there is very little cultivation now. In Mursidabad Sal forests, besides timber, yield *Tasar* silk and beeswax, also *Satamul* and *Anantamul,* valuable medicinal drugs. Santals and Dhangars engage in their collection. In the north-west, in Jangipur, people rear the lac insect on *barui* trees and drive an extensive trade in lac. The gum of the *babla* (gum acacia) is collected in Nadia. The chief articles of the jungle in 24-Parganas are different kinds of wood, such as *sundri* and *pasur,* used for planks and house-posts; *Kirpa,* used as rafters for thatched roofs; *bain,* used for house beams; *hental,* used for the walls of houses and granaries as wattle; *garan,* used for fences, rafters, etc., and the bark for tanning and dyeing; *keora* for planks, etc.; *gango* and *Khalsi* for firewood; and *babla* for firewood, the bark being also used in tanning and dyeing. Different kinds of shells, honey and beeswax, *Golpata* leaves used for thatching purposes, *gab* fruit, the extract of which forms a thick glue, and is extensively used in coating native boats, to preserve them from the action of water, *anantamul, gulancha, nata* and other vegetable drugs, also come from the forests. The people who principally trade in jungle products are Maules, Bagdis, Kaibarttas, Pods, Chandals, Kaoras, Karangas and poorer Muslims. Besides the above, reeds for mats are also available in the Sundarbans. The principal classes of people which depend for livelihood on the collection and sale of forest produce are the *bhawali* and *fakir,* or woodcutter class. Hooghly and Howrah yield reeds and a few medicinal drugs; the bediyas are the only caste which collect them. In Midnapur the principal jungle products are lac, tasar silk, wax, *rang* (a red dye obtained from a wood), bark fabrics, a few drugs called *panchan,* resin, firewood, charcoal, peacock feathers, feathers of the Nilkantha bird, deer and buffalo horns. The castes which subsist by collecting and trading in them are the Majhis, Bhumijs, Santals, Kurmis, and Lodhas. In Bankura large supplies of lac and tasar are available which are gathered by Santals and Bauris.

Wild life

80. As has been remarked above, wild life in the State is in serious distress owing to rapid denudation of forests and drainage of marshes and swamps. The richest areas in the State from the point of view of wild life are the districts of Darjeeling, Jalpaiguri and Cooch Behar, especially their forest areas. The plains forests of these districts are the abode of magnificent animals like the tiger, the panther, the elephant, the bison, and the rhinoceros, the last-named three occurring east of the Tista. There are five kinds of deer, the *Sambhur,* the *Cheetal* (spotted deer), the hog-deer, the barking deer, and the *bara Singha* (swamp deer). The sloth bear visits the forests near the foothills. Wild buffaloes are rarely seen. Wild pigs abound in the forests. Among the smaller animals are the wild cat, the large Indian Civet, the fishing cat, the leopard cat, the porcupine, the hare, the otter, the marten, the fox and the Indian pangolin (or scaly ant-eater which represents the Edentata or toothless mammals). Jackals roam about near forests, and are bold enough even to stalk village roads. Wild dogs are very rare except in the Singalila range. In the hills the Serow (or Himalayan goat antelope), the gural (wild sheep), the Himalayan black bear, and the sloth bear are among the more interesting denizens of the jungle.

81. Monkeys (the red faced variety) and Hanumans (the langur) are quite noticeable, in inhabited areas as well as forests. The animals in the Sundarbans are very limited in their range, mainly consisting of tiger, cheetal deer, wild pig, crocodiles and muggers, gharials, various kinds of lizards (wrongly termed iguanas), whose skins are valuable. In the western districts, the hare and panthers are about the only wild animals that one can see. An occasional hyena or wolf is seen in Midnapur and Bankura, and rarely a wolf as far east as Hooghly. In the forests bordering on Bihar, bears are occasionally sighted, and once in a while a wild elephant from Mayurbhanj strays into Jhargram. The inveterate enemies of standing crop are wild pig, the monkey and langur, hare, and jackals who are distributed fairly evenly all over the State.

82. Among birds the commoner ones are the jungle fowl, pea-fowl, pigeons of various kinds including green pigeons and Imperial pigeons, the brown and black partridges, quails, snipe, sandpipers, the horn-bill, the laughing thrush, babblers, nut-hatches, drongos (including the racket-tailed drongo), the wren, the warbler, the bee-eater, orioles, starlings, mynahs, ouzel, martin, shrike, weaver bird (especially in Jalpaiguri and Cooch Behar), the hoopee, copper smiths, wood peckers, barbets, cuckoos of various kinds, the blue jay, several kingfishers, sunbirds, adjutants, several teals, egrets, herons, etc. Pink headed wood duck, pheasants, ortolans and floricans are rare, the last-named being found only in Malda. Wild duck and geese visit in progressively smaller flocks now as their favourite and famous haunts in the Bhaluka and Gajol *bils* of Malda, the Hijal and Kalantar *bils* in Murshidabad, the south of Shalimar and Uluberia *bils* in Howrah, and the marshes of 24-Parganas are being reclaimed for cultivation. Pintails, mallards, gadwalls, pochards, wigeons are yearly getting rarer, while geese, even the greys and barheadeds, so common until a few years ago, are an apparition well worth waiting for.

83. There are a variety of reptiles including tree snakes, Kraits, Cobras, King Cobras and pythons, and a variety of water and non-poisonous snakes and vipers.

84. Darjeeling is the microcosm of wild animals and birds of the State. The Government maintains three sanctuaries: two in the Jalpaiguri Forest Division, Garumara which preserves among other animals the rhinoceros, and Chapramari which is famed for

birds. The Cooch Behar Forest Division of Jalpaiguri maintains the third sanctuary, Jaldapara, which contains the Nilpara forest famed for the rhinoceros.

Fishes

85. As can well be imagined from the description of the rivers of the State, fresh water fishes are well represented in the Bengal waters, and fairly long lists have been received from every district. There is also a fair enumeration of the estuarine fish, but not more than a beginning has been made with a list of marine fish. The following account gives a brief description of the principal varieties.

86. Sharks and skates are sometimes caught high up in the rivers, but they properly belong to the sea and estuaries. In a " Map to Illustrate a Report upon the Bhaugiruthee River " prepared by Walter S. Sherwill in 1857 and reprinted between pages 150 and 151 of Volume I of *Selections From the Records Relating to the Damodar Floods and Embankments* published in 1916, Sherwill records that at a point 2 miles northeast of Calcutta "twenty globio-cephalus whales (were) killed here in 1850, length 16 to 24 feet " and across the Eastern Sundarbans on his map, he notes " Forest of Palms, Soondree, or Heritiera, Mangroves, Nipa Sonneratia, etc., growing in black mud, the abode of numerous Rhinoceros, stags, bears, Buffaloes, Tigers, and Monkeys and in the Rivers Alligators, Sharks, Turtle, abundance of Fish, and occasionally small Whales, Globiocephallus ".

87. Among Physostomi—of the family Siluridae—clarius (*magur*), Soccobranhus fossils (*singhi*), Wallago attu (*boal*), Eutropichthys Vacha (*bacha*), Callichrons Pabda (*pafta*), Ailia coila (*kajuli* or *baspati*), Pangasius buchanani (*Pangas*), Silundia gangetica (*Silard*), Macrones aor (*air*), Macrones corsula (*tengra*) have been reported from almost all the districts. Some of the Siluridae are grass feeders, *e.g.*, *pangas* and *rita*. The best known fresh water fish belong to the carp family of which the principal species are Labeo calbasu (*Kalbaus*), Labeo gonius (*goni*), Labeo bata (*bata*), Labeo Rohita (*rui*), Labeo bata (*bata*), Carrhina mrigal (*mrigal*), Catla buchanani (*Katla*). Interesting for angling are the *masheer* or *mahasol* and *goonch* in Darjeeling, Jalpaiguri and Cooch Behar.

88. *Sarana*, *punti*, *dankini* are smaller species with which rivers, jheels, and tanks abound. In fresh water a good many of the clupea family are caught, though the principal species properly belong to the sea. Both the Notopteridae, *i.e.*, Notopterus Kapiret (*phali*) and Notopterus *chitala*, are fresh water fishes ; they breed in tanks and stagnant water and are largely caught. Of Gobiidae, the Gobius guiris (*gula*), of Labyrinthici, the Anabas Scandens (*Koi*), of Fhynchobellidae, the Mastacembelus Zebrinus (*raj pankal*), and of the Chhiocephalidae, the Oppiocephalus S. striatus (*sol*), Ophiocephalus marulias (*sal* or *gazal*), and the Ophiocephalus gachua (*cheng*) are all fresh water fish and prized for their value as food. Of fishes caught in the sea and estuaries, there are the Siluridae and Clupeidii. Of the latter the clupea ilisha (*hilsa*), the Engraulis hamiltoni (*phasa*), the Coila dussemieri (*corialli*) are extensively netted. There are also the ***bhekti***, the ***topsea*** or mango fish and the pomfret. There are many other varieties of sea and marine fish which have not yet been fully catalogued. A great deal of commerce is done on the transport of spawn and fish fry which constitutes one of the major rural commerces. Of the shell fish, shrimps, prawns, and lobsters and of shells the turtle, crab and oyster are common. The loss of East Bengal has denied the State the richest and most extensive fisheries. It has also restricted the kingdom of the hilsa cycle which is one of the most interesting of fish cycles in the East.

Castes and tribes

89. Although as a matter of all-India policy this Report is precluded from making a detailed survey of the ethnic and caste composition of the State's population, yet a very brief survey of the composition of the population of each district will afford insight into the problems of population and sustenance. The following account, therefore, is confined to a bare enumeration of the elements of the population of each district.

90. The steadily increasing demand for labour and haulage in the mines and factories of the Asansol subdivision of Burdwan district has attracted immigrants from all over India chiefly from Bihar and Central India. There are large Muslim (Sunni) settlements in Churulia and Kanksa on the Ajay, in the mills and factories of Asansol, in Mahmudpur in Manteswar, in Rayna, in Mangalkot, and in Kalna and Katwa. There are large colonies of Santals all over the district, wherever paddy is grown, of Koras in Asansol. The Hindu castes pervade the district. The largest substratum of the population consists of the Bagdis and Bauris, the Sadgops, the Gops, and Aguris or Ugrakshatrias.

91. There are fairly numerous settlements of Muslims in Birbhum, some of which are ancient and large as in Rajnagar. The great majority of them are Sheikhs, but Pathans, Saiyids and Jolahs are also found. The main constituents of the Hindu and Tribal population are the Bagdis, the Sadgops, the Santals, the Muchis, the Doms, the Brahmans, the Mals, the Bauris, and the Haris. Among the small communities may be mentioned the Bhollas and Jadu Patuas.

92. Bankura has seen a great deal of emigration, immigration being mainly confined to the harvesting months when harvesters from Manbhum and Singhbhum make the district their temporary home. Coal mines in the north have attracted immigrants from Bihar and other States of India. Muslims are found in greatest strength in the Vishnupur subdivision and especially in the thanas bordering on Burdwan, *viz.*, Kotulpur and Indas. They are Sunnis, the majority being Sheikhs. The Tribals are almost entirely represented by the Santals. The district is famous for its Bauri and Bagdi population, the other numerous castes being Brahmans, Telis and Gops. Santals form a large section of the population, and in fact Bauris, Santals and Bagdis may be said to people the greater portion of the district.

93. Khargpur city in the heart of Midnapur district has a large conglomerate population comprising immigrants from every State in India to man the Khargpur railway workshops, but elsewhere in the district immigrants are few and far between. Muslims are mostly found in and around Midnapur, in Khargpur and in parts of Tamluk and Ghatal subdivisions. The whole of Contai subdivision, and the thanas of Nayagram, Gopiballavpur, Dantan, Keshiari, and Narayangarh have a large population who speak a corrupt form of Oriya. The Oriya of the south of the district is largely Bengali, and that of the west is interlarded with a large Santali vocabulary. Midnapur has a large conglomerate of castes among Hindus and Tribals, the chief of whom are Mahisyas, Kaibarttas, Santals, Bagdis, Sadgops, Brahmans, Bairagis or Vaishnavas, Tantis, Kurmis, Telis, Rajus, Gops, Karans, Bhumijs, Kayasthas, Napits, Kadmas, Dhobas, Namasudras (Chandals), Kamars and Lohars, Pods, Suklis, Kumhars, Kasthas, Haris, and Lodhas. The Siyalgirs are a small interesting community living in Mohanpur, who speak a dialect of Gujrati, while another small interesting community is a settlement of Goanese Christians in Geonkhali. The Suklis and Tuntias are functional Muslim castes. The Mahisyas, excellent cultivators and pioneering settlers, bound together by a strong discipline and clannishness, constitute the largest single factor in the population of the district.

94. The thirty-mile long riverside urban strip of the district of Hooghly has attracted a very large number of immigrants from all parts of India to its jute mills and factories. Elsewhere the immigrant population is small. Muslims are found mostly in thanas Hooghly, Panduah, Balagarh and Dhaniakhali. A few also are found in thanas Chanditala and Goghat. The bulk of the Muslims are Sheikhs, a few are Ajlaf, Bedia, Dhawa or Mallik, the more numerous being Momins or Jolahs. Among the Hindu castes the more numerous are the Bagdis, Vaishnavas, Bauris, Brahmans, Doms, Gops, Mahisyas, Kaibarttas, Kamars, Kayasthas. Kaoras, Muchis, Napits, Sadgops, Tantis and Telis. Among the Tribals the more numerous are Santals, Oraons, Bhumijs, and Khairas. The Santals congregate chiefly in thanas Dhaniakhali, Pandua and Haripal ; the Bhumij in thana Balagarh, the Khairas in thana Pandua and the Oraons in thanas Serampur, Chanditala and Singur.

95. The district of Howrah also has a large immigrant population in Bally, Lillooah, Howrah City, the E. I. and B. N. Railway settlements, and in Bauria. This population is drawn from most States in India but contained mostly in the urban and industrial areas of the district. The Muslims are found in greatest strength in Howrah City, in thanas Domjur, Uluberia, Amta, Shyampur and Jagatballavpur. They export a large artisan population to Calcutta from the rural thanas. They are mostly Sunnis, the majority being Sheikhs. Malliks, Pathans or Saiyids are few in number. Jolahs are found chiefly in Howrah City. The tribals are few in number and are confined to Oraons and Santals found mostly in thana Domjur. The main Hindu castes are Brahmans, Kayasthas, Gops, Sadgops, Kaibarttas, Mahisyas, Bagdis, Tiyars, Pods and Kaoras.

96. The 24-Parganas and Calcutta districts have the largest immigrant population in the State, which is drawn from all States in India and abroad. The Hooghlyside, from Kanchrapara in the north to Budge Budge in the south, is heavily peopled by immigrants to a uniform depth of about three miles in the country and the population is one of the most heterogeneous that can be found in the whole of India. Muslims are relatively most numerous in the Barasat and Basirhat subdivisions. They are mostly Sunnis, Sheikhs being most numerous, followed by Ajlafs and Jolahs. The Tribals, emigrants almost entirely from Chota Nagpur, are employed in reclamation of land in the Sundarbans, but they are being rapidly and effectively replaced by Mahisyas from Midnapur. Tribals include Oraons and Mundas but very few Santals. The principal Hindu castes consist of Pods, Mahisyas, Kaibarttas, Bagdis, Brahmans, Gops, Kaoras, Tiyars, Kayasthas, Muchis, Napits, Vaishnavas, and Namasudras (Chandals).

97. Nadia has a small immigrant population in the holy towns of Nabadwip and Santipur and the railway colony of Ranaghat. Muslims are scattered in the eastern parts of Ranaghat subdivision and thanas Karimpur and Tehatta. The vast majority of them are Sheikhs, the numbers of Jolahs and Ajlafs being small. The tribal population is small but there is a numerous Vaishnava population. The principal Hindu castes are Mahisyas, Kaibarttas, Ahirs, Gops, Brahmans, Bagdis, Muchis, Namasudras (Chandals), Kayasthas and Malos. There is a very small community of Bunos.

98. Murshidabad has a small immigrant population. Muslims predominate in the Sadar, Lalbag and Jangipur subdivisions, and are scattered over Bharatpur, Burwan and Khargram police stations of Kandi subdivision. There is a small Shia community in Lalbagh, the rest being mostly Sunnis and Sheikhs. There is a vigorous community of Shershabadia Muslims on the river line of the Ganges. Among Tribals, the Santals, mostly immigrants

from the Santal Parganas, have settled in Jangipur, Sagardighi, Nabagram and Khargram thanas. There are also Oraons, Koras and Mundas. The principal Hindu castes are Mahisyas, Sadgops, Chainmandals, Brahmans, Gops and Puros.

99. Malda has seen large immigrations of Hindus from Purnea, Shershabadia Muslims from Murshidabad, Santals from Santal Parganas, and Paliyas from Dinajpur and Bogra. Muslims are numerous in the alluvial tracts of Kaliachak, Manikchak, and Ratua. With the exception of a few families of Saiyids, Mughals and Pathans all the Muhammadans are Sheikhs. Among the cultivators the Shershabadias form a distinct group. Of the functional groups may be mentioned the Jolahs (weavers), Dhuniyas (carders), Naluas (reed sellers), Nikaris (fishermen), and Kunjras (vegetable sellers), Pir-ko-Dalis (beldars). There is a curious sect of fakirs in Ratua. The Tribals are represented almost solely by the Santals. There are a number of Bihari castes among the Hindus, chief of whom are the Nagars. Castes peculiar to the district are Chasatis and Puros, agriculturists and silk-worm rearers respectively. Castes mainly found in this district are Ganesh and Gangai, weavers and potters, though also agriculturists. Of the numerically more important Hindu castes the chief is that comprised by the Koch Rajbansis, Paliyas and Deshis. The Chains are a caste with Bihari affinities found in large numbers in the *diara* thanas of the west of the district.

100. West Dinajpur has a more homogeneous population. The Muslims are chiefly the descendants of Rajbansis converted by force to Islam or who adopted that religion. Muslim cultivators are mostly Sheikhs, though the name by which they go more frequently is Nasya, meaning one whose original religion has been destroyed, *i.e.*, a convert. There are also small numbers of Saiyids (priests), Pathans (police and peons), Mughals (woollen cloth dealers). There is a curious sect of fakirs in mauza Baliyadighi in Hemtabad. The Tribals are represented by Santals, Oraons and Mundas, immigrants from the Santal Parganas and the Chota Nagpur Plateau. The main Hindu castes are Kayasthas, Rajputs, Chasi Kaibarttas or Mahisyas, Haris, Jugis, Tantis, Napits and Vaishnavas. Some of the most numerous castes are, however, the Rajbansis, Deshis or Deshi Rajbansis, Paliyas. There are a few Kantais and Koches.

101. The tea garden population in Jalpaiguri is a mosaic of immigrants from Bihar, Madhya Pradesh, Orissa and Madras, and contains divers elements. The Muslims are mostly Sheikhs. The Tribals consist of Bhotiyas, Mundas, Oraons, Santals, Lepchas, Garos, Meches, Totos and obscure Bhutanese groups. There are Tibetans, Sikkimese and Nepalese castes. Of the Hindu castes the predominating groups are the Rajbansis, Koches and upper-caste Hindu immigrants from Dacca, Faridpur and Mymensingh.

102. In Darjeeling the tea garden population in the *terai* is as mixed and full of immigrants as in Jalpaiguri. In the hills Muslims are a minority, mostly immigrants from East Bengal, Sunnis and Sheikhs. Among the Tribals Santals, Meches, Oraons, Mundas, Bhutias and Lepchas are present in varying strengths. There are Bengali, Marwari, Punjabi and Bihari castes, while among the Nepalis the principal castes are Rai, Sherpa, Chettri, Sanyasi, Brahman, Bhujel, Yogi, the tribes being Mangar, Newar, Tamang, Damai, Gurung, Limbu, Kami, Kagatay, Sunawar, Yakha, Sarki and Gharti. Rajbansis are fairly numerous in Siliguri subdivision.

103. Rajbansis predominate in Cooch Behar, other castes in small numbers being Koches, Garos, Meches, or Baras. There is a considerable Muslim population, mostly converts and agricultural Sheikhs, both native and immigrant from

Mymensingh. Besides, there are the usual Hindu castes in small numbers.

104. The oldest and possibly native inhabitants of Sikkim were perhaps the *Rong,* or, as we know them from their Nepalese title, the Lepchas. The next in importance, if not in antiquity, are the Khampa or Khambas, immigrants from the Tibetan province of Khams, commonly called Bhutias. The Sikkim Limbus rank as last and least. They are believed to have migrated to Sikkim from Shigatse, Penam, Norpu, Khyongtse, Samdubling, and Gyangtse, places in the Tibetan province of Tsang, south of the Tsanpo (Brahmaputra). The main races or castes are the Lepcha, Bhutia, Limbus, Gurungs, Murmi, Rai (Jimdar), Khambu, Kami, Brahman, Mangar, Chhetri, Newar, Kagatay, Darzi. Of them, the Limbus, Gurungs, Murmis, Khambus, and Mangars are more or less allied, while the others, excepting the Lepcha and Bhutia, are later immigrants from beyond the Arun in Nepal. The immigration of Nepalis continues unabated.

105. The following statement shows the distribution and percentages of the main religions in each district of West Bengal.

STATEMENT O.14

Religions in West Bengal, 1951

State and Districts	Population	Hindus	Percentage to population	Sikhs	Percentage to population	Jains	Percentage to population	Buddhists	Percentage to population
West Bengal	24,810,308	19,462,706	78·45	29,864	0·12	19,116	0·08	81,576	0·33
Burdwan Division	*11,102,530*	*9,584,567*	*86·33*	*10,643*	*0·10*	*4,069*	*0·04*	*1,683*	*0·01*
Burdwan	2,191,667	1,835,106	83·73	5,875	0·25	1,003	0·05	271	0·01
Birbhum	1,066,889	774,527	72·60	327	0·03	137	0·01	27	0·00
Bankura	1,319,259	1,202,653	91·16	120	0·01	1,687	0·13	8	0·00
Midnapur	3,359,022	3,082,900	91·78	2,923	0·09	938	0·03	1,066	0·03
Hooghly	1,554,320	1,344,765	86·52	362	0·02	105	0·01	90	0·01
Howrah	1,611,373	1,344,616	83·45	1,536	0·10	199	0 01	221	0·02
Presidency Division	*13,707,778*	*9,878,139*	*72·06*	*19,221*	*0·14*	*15,047*	*0·11*	*79,893*	*0·58*
24-Parganas	4,609,309	3,406,298	73·90	3,164	0·07	384	0·01	1,468	0·03
Calcutta	2,548,677	2,125,907	83·41	14,166	0·56	11,741	0·46	9,427	0·37
Nadia	1,144,924	881,955	77·03	328	0 03	77	0·01	217	0·02
Murshidabad	1,715,759	765,218	44·60	51	0·00	1,408	0·08	20	0.00
Malda	937,580	589,896	62·92	56	0·01	50	0·00	7	0·00
West Dinajpur	720,573	499,327	69·30	18	0·00	249	0·03	45	0·01
Jalpaiguri	914,538	769,878	84·18	1,073	0·12	377	0·04	6,540	0·71
Darjeeling	445,260	363,836	81·71	322	0·07	123	0·03	62,150	13·96
Cooch Behar	671,158	475,824	70·90	43	0·01	638	0·09	19	0·00
Chandernagore	49,909	47,954	96·08	3	0·01	..	..	13	0·03
Sikkim	137,725	97,863	71·06	18	0·01	19	0·01	39,397	28·61

State and Districts	Zoroastrians	Percentage to population	Muslims	Percentage to population	Christians	Percentage to population
West Bengal	1,918	0·01	4,925,496	19·85	175,021	0·70
Burdwan Division	*79*	*0·00*	*1,395,003*	*12·56*	*21,886*	*0·20*
Burdwan	2	0·00	341,878	15·60	6,135	0·28
Birbhum	2	0·00	286,518	26·86	686	0·06
Bankura	..	..	58,103	4·40	1,251	0·10
Midnapur	43	0·00	240,860	7·17	9,268	0·28
Hooghly	1	0·00	206,230	13·27	1,278	0·08
Howrah	31	0·00	261,414	16·22	3,268	0·20
Presidency Division	*1,839*	*0·01*	*3,530,493*	*25·76*	*153,135*	*1·12*
24-Parganas	160	0·00	1,168,629	25·35	28,534	0·62
Calcutta	1,623	0·06	305,932	12·00	75,836	2·98
Nadia	..	..	256,017	22·36	5,885	0·51
Murshidabad	..	..	947,815	55·24	745	0·05
Malda	..	..	346,649	36·97	830	0·09
West Dinajpur	..	..	215,739	29·94	3,283	0·45
Jalpaiguri	..	..	89,099	9·74	25,481	2·79
Darjeeling	41	0·01	6,393	1·44	12,310	2·77
Cooch Behar	9	0·00	194,220	28·94	281	0·04
Chandernagore	.	..	1,667	3·34	272	0·54
Sikkim	..	.	184	0·09	304	0·22

STATEMENT O.14—concld.

State and Districts	Jews	Percentage to population	Other Religions: Tribal	Percentage to population	Non-Tribal	Percentage to population	Religions not stated	Percentage to population
West Bengal	2,619	0·01	109,294	0·44	1,079	0·00	1,619	0·01
Burdwan Division	*173*	*0·00*	*84,420*	*0·76*	*5*	*0·00*	*2*	*0·00*
Burdwan	65	0·00	1,882	0·08	..	..	..	..
Birbhum	2	0·00	4,661	0·44	..	..	2	0·00
Bankura	..	..	55,437	4·20	..	.	..	..
Midnapur	58	0·00	20,966	0·62	..	..	..	..
Hooghly	3	0·00	1,483	0·09	3	0·00	.	..
Howrah	45	0·00	41	0·00	2	0·00	..	..
Presidency Division	*2,446*	*0·02*	*24,874*	*0·18*	*1,074*	*0·01*	*1,617*	*0·01*
24-Parganas	138	0·00	240	0·01	288	0·01	..	..
Calcutta	1,935	0·08	3	0·00	779	0·03	1,270	0·05
							Atheist 58	0·00
Nadia	352	0·03	11	0·00	7	0·00	75	0·01
Murshidabad	..	..	441	0·03	..	..	61	0·00
Malda	..	..	87	0·01	..	..	5	0·00
West Dinajpur	..	.	1,962	0·27	..	..	..	..
Jalpaiguri	..	.	22,001	2·41	..	..	89	0·01
Darjeeling	17	0·00	11	0·00	..		57	0·01
Cooch Behar	4	0·00	118	0·02	.	..	2	0·00
Chandernagore	..	..	..	..	..	..	..	.
Sikkim	.	..	..	..	..	..	..	..

Irrigation

106. The agricultural products of the State may be summarised in two names, rice and jute. The details of agricultural production by districts will be discussed in a later chapter and it will suffice here to describe the main crops grown in each area. In spite of the very large number of rivers and rivulets, it is rather astonishing to a stranger that they provide the smallest source of irrigation, practically none at all during the dry, hot months, because (*a*) most of them dwindle to very small trickling streams in the hot months meandering through the middle of their beds, very far from the nearest cultivated field; (*b*) most banks being raised by embankments or the silt from overflooding rivers during the monsoon, river beds in most instances are too low to repay lifting of water by primitive hauling machines; (*c*) in the dry months when irrigation is most needed, the rivers become bereft of fertilising silt and yield clear water with a modicum of sand which is not always beneficial to a cultivated field; (*d*) in many areas where the river beds are very much lower than the level of the fields, the presence of the rivers is a positive nuisance in the dry season because they drain the water from the surrounding country and substantially lower the water level. The rivers are not much of a help in the monsoon either, because rapid flooding is more often the experience than slow and beneficial inundation, and the peasant is more anxious that the flood water should drain and go away than stay and fertilise his land or nourish his crop. Thus, in a land of rivers the latter bestow only indirect benefits the coming of which almost always blights present prospects: the depositing of silt which occurs at the expense of the standing crop, and the draining of the land of impurities which damages property, inconveniences farm and livestock, and sometimes leaves behind unhealthy cesspools. The swift-flowing rivers create other problems of uncertainty and gamble : they frequently burst their banks and are constantly engaged in forming and destroying land on either side. This process of alluvion and diluvion contribute to great uncertainties in cultivation and inject a litigious spirit into peasants. There is the other gamble that the flood may bring either silt, which enriches the soil, or throw in sand, which it may take years to remove or subdue. Brief mention has been made in paragraphs 195 and 196 below of the Sundarban rivers. These rivers do not carry silt but their levels being often higher than the surrounding countryside a flood spills saline water over the embankments bringing disaster. Thus in a land of rivers,

thanks to the many embankments, ignorant and ill-planned interference with the courses of streams, reckless deforestation in catchment areas and banks, thoughtless diversions engineered out of selfish motives which have the devastating effect of changing the course of rivers and laying entire areas waste in a very short time, the rivers are more a curse than a boon, and irrigation has to depend almost entirely on rain, artificial waters called tanks, ponds, and marshes called *jhils* and *bils*. It is curious that except the Hijli Tidal, cossye and Orissa coastal Canals in Midnapur, the Damodar Canal system, and the newly inaugurated Mayurakshi and Damodar Valley projects which have a positive programme of conserving water and making it available through canals or resuscitated streams for irrigation, almost all major irrigation projects in the country are confined to the building and maintenance of embankments and dykes, to contain the rivers in their beds. This results in the gradual raising of the beds of rivers, to contain which still higher embankments are raised until they are made to grow to untenable heights and block up the drainage of the surrounding countryside. The classic case is that of the Damodar embankments which so raised the bed of the Damodar that it was higher than the country on the left of the river, as a result of which the embankments on the right bank on the Arambag side had to be destroyed. The continued flooding of the country always on the right side had the effect of raising the land on the right bank by as much as 7 or 8 feet, with the result that it created marshes farther beyond, and perpetuated waterlogged marshes on the left below the embankments. A series of frequent and disastrous floods, the last in 1943, which was the occasion of the Damodar Valley Project, has been the unhappy consequence of the Damodar embankments in West Bengal and ruthless deforestation in the catchment basins in Bihar. Another classic case of ill-devised embankments is Midnapur where the twin policy of excluding the flood water instead of regulating it, and the policy of reclaiming lands at the expense of spill areas have been most unfortunate for their results. The beds of the rivers have been raised above the surrounding country so that disastrous floods of the Subarnarekha and Rupnarayan have occurred repeatedly, far more destructive than they would otherwise be. Areas encroached by embankments or behind reclaimed lands made by nature for the receipt of silt, have tended to become waterlogged depressions, deprived of silt, thereby causing malaria, diminishing the fertility of the soil, decreasing cultivation, decline in industries, and decrease in the population. Embankments on the tidal creeks in the Sundarbans have retarded the process of land formation on the sea, in the same way as land formation and the growth of tidal forests have been interfered with in the Sundarbans. This has been discussed in the section on the forests of the State. Examples of ill-planned interferences with rivers will be found in the Bhagirathi and Mayurakshi embankments of Murshidabad and the Jalangi and Bhairab rivers in Nadia. in the Hooghly district and the Kalindri river in Malda, each one of them having had very unfortunate repercussions on the progress of cultivation and the growth of the population. The effects of reckless deforestation in the catchment areas and banks of the Tista, the Damodar and Barakar, the Dhalkisor and the Kasai have been too ruinous to be recounted in this short review. A great deal of Jalpaiguri district has been lost to cultivation by thoughtless interference with the courses of hill streams, by the cutting of small, seemingly harmless, irrigation channels by private peasants which had the effect of diverting the courses of nearby larger rivers. This happened with the Torsa in Cooch Behar which was interfered with to save the headquarters town. In the last century diversions were made in the Bhagirathi above Berhampur in Murshidabad which had the effect of ruining completely the big and prosperous city of Kasimbazar ; interferences with the Jalangi and Mathabhanga led to the depopulation of many thanas in the heart of Nadia.

107. By the same irony of circumstance by which rivers in our country became more of a curse than a boon, the major irrigation projects in the State—with the honourable exception of the Damodar canals in the thirties of the present century and the Eden Canal in the last century, and several navigation canals in Midnapur and the lower Sundarbans—were undertaken to deny water to the land. It sounds like a paradox, but it is only too true. And so also with the minor projects. Most minor projects of the Irrigation Department are undertaken with a view to draining the country of unwanted water. The slope of the three Himalayan West Bengal districts are so steep that very little human assistance is necessary to drain the land there. But lower south drainage schemes start in West Dinajpur with the valley between the Mahananda and Tangan, in Malda with the Mahanandapur and North Kharba *bil* area, the Old Malda *bils*. and the North Kalindri zone in Ratua ; in Murshidabad the draining of the Telkar, Basia, Raninagar-Bhagwangola, Kalantar and Hijal *bils* ; in Nadia the draining of the Tehatta-Chapra area, in 24-Parganas the draining of the entire country east and south-east of Calcutta; in Hooghly the draining of the Kana Nadi basin, the Saraswati and Kunti basin, the Baidyabati-Bally Khals, the Rajapur and Dankuni drainage projects covering both the districts of Hooghly and Howrah; in Midnapur the draining of the south Ghatal and Tamluk areas. It is significant that all these enterprises, some accomplished, others in contemplation, are drainage schemes engaged in pushing water out of the land.

108. Thus it seems that the more important task of the Irrigation Department in West Bengal has been to drain the land of injurious water than the excavation of an extensive network of river training and irrigation canals. Soil erosion was not much of a problem in the nineteenth century, when the coming world shortage of food was dismissed as a Malthusian jingo, and embankments were raised to protect the new railway permanent ways, roads, and mills and factories on the Hooghly side. Each generation interferes with the ecology of a country according to its lights and ability to see into the future and it is beside the point to lay the blame at the door of a preceding generation. Besides, there is always the other side of the shield, and when one considers the building up of wealth through the construction of railways, roads, mills and factories in the nineteenth century, made possible by a system of embankments to keep out floods, it may appear that the latter were certainly not an unmixed evil. One can only regret that the hydraulics of the Ganges Delta were not studied with more thoroughness in the nineteenth century, although it was in the middle of this century (1863) that James Fergusson produced his thesis " On The Recent Changes in the Delta of the Ganges " which still remains the most important single contribution to the study of rivers and irrigation problems in this State (reprinted as an Appendix in Part IC of this Volume. This James Fergusson, Fellow of the Royal Society, is the same as the author of *Tree and Serpent Worship in India* (1868) and one of the pioneers of the Archaeological and Anthropological Surveys in India). Traces of pre-eighteenth century irrigation works throughout the country, however, and the presence of innumerable creeks and khals, excavated by human agency (away from flood

bearing rivers, which used to cushion the onrush of floods and distribute them rapidly and systematically throughout the countryside), still remain as wholesome lessons. The most forceful advocates of a close study of the old pattern of flood irrigation were C. A. Bentley and William Willcocks. Between them they came to the conclusion that in Bengal, irrigation with flood water was necessary for (i) enriching the soil, (ii) combating malaria, (iii) providing fish in abundance for all, and (iv) preventing congestion of the rivers. A. E. Porter, the Census Superintendent of 1931, in his Report agreed with much that Bentley had advocated between 1910 and 1930, but such was the contemporaneous resistance to these ideas that William Willcocks in his Reply to the Note of the Chief Engineer of Irrigation, dated April 1931, observed that "when I landed one of the first men I met told me to beware of that crank Dr. Bentley who thought flood irrigation was needed in Bengal with 60 inches of rainfall. I learnt that Lord Lytton, advised by the Irrigation Department, had said in his last speech that the one thing not needed in Bengal was flood irrigation." William Willcocks had gone round the country map in hand in 1927-28 and was apparently convinced of the truth of this entry dated 1660 in Bernier:

> The knowledge I have acquired of Bengal in two visits inclines me to believe that it is richer than Egypt. It exports in abundance cottons and silks, rice, sugar and butter. It produces amply for its own consumption of wheat, vegetables, grains, fowls, ducks and geese. It has immense herds of pigs and flocks of sheep and goats. Fish of every kind it has in profusion. From Rajmahal to the sea is an endless number of canals, cut in bygone ages from the Ganges by immense labour, for navigation and irrigation, while the Indian considers the Ganges water as the best in the world.

109. Willcocks averred that Bernier was no fool when he wrote the above, and his survey of the difference between the alignments and spacings of natural rivers and artificial canals for irrigation was proof positive that Bernier was right, and what some had taken for 'dead rivers', on the argument that "with the natural swing of the rivers, there must necessarily be 'dead rivers'," were once irrigation canals, because these so-called 'dead rivers' were, observed Willcocks, "well aligned and spaced and just where they are needed for irrigation over many millions of acres of land". He was of the further opinion that "a few regulators will put these canals into a position to be used again, once the ploughed up head reaches are redug". Even in this brief survey it is difficult to resist the passage which Willcocks rescued from "a monograph on irrigation works and irrigation in Bengal" written in 1794 by a number of Englishmen in Calcutta, and printed in *Indian Engineering* in 1928:

> In the tract of annual inundation, insulated habitations and fields raised considerably above the level of the country exhibit the effects of patient industry. There were dikes to check the inundations and reservoirs and dams constructed for irrigation. Irrigation is less neglected than facility of transport. In the management of forced rice, dams retain the water on extensive plains, or preserve it in lakes to water lower lands, as occasion may require. For either purpose much skill is exerted in regulating the supplies of water. There are stupendous dikes, not altogether preventing inundation, but checking its sudden excesses, and dams advantageously constructed assist the cultivation of considerable tracts. [One of the Englishmen writing the monograph was obviously H. T. Colebrooke, because all but the first two sentences in this quotation is from his '*Remarks on the Husbandry and Commerce of Bengal*' *A. M.*].

In this context the following quotation from page 586 of H. G. Raverty's Volume I of the *Tabakat-i-Nasiri* by *Minhaj-i-Siraj* will appear very relevant:

> The territory of Lakhanawati has two wings on either side of the river Gang. The western side they call Ral [Rarh] and the city of Lakhanor lies on that side, and the eastern side they call Barind [Barindah] and the city of Diwkot is on that side. From Lakhanawati to the gate of the city of Lakhanor, on the one side, he, Sultan Ghiyasuddin 'I Waz [caused] an embankment [to be] constructed,

> extending about ten day's journey, for this reason, that, in the rainy season, the whole of the tract becomes inundated and that route is filled with mud swamps and morass; and if it were not for these dykes, it would be impossible [for people] to carry out their intentions, or reach various structures and inhabited places except by means of boats. From his time, through the construction of those embankments, the route was opened up to the people at large.

In his footnotes to this text H. G. Raverty adds:

> These embankments, according to other writers likewise, were constructed through the perseverance and forethought of Sultan Ghiyasuddin 'I Waz. Another author states that the 'former ancient rulers of Bang, the present capital of which is Dhakah, on account of the vast quantity of water which accumulates throughout the province in the rainy season, caused causeways to be constructed twenty cubits wide and ten high, termed *āls*, and, from the proximity of these *āls*, the people styled the province *BANG-AL*. Rain falls without ceasing during one-half of the year in the rainy season, and, at this period, these *āls*, appear above the flooded country'.
>
> A European writer, writing on the province, 'as at present constituted', says: 'there are several remarkable military causeways which intersect the whole country and must have been constructed with great labour; but it is not known at what period. One of these extends from Cooch Bahar [Kuch Bihar] through Rangamatty (Rangamati) to the extreme limits of Assam, and was found when the Mahommedans first penetrated into that remote quarter'. He, of course, must mean the Muhammadans of Aurangzeb's reign.

The following quotation from H. S. Jarrett and J. N. Sarkar's *Ain-i-Akbari* of Abul Fazl (Vol. II, page 132) corroborates the above:

> *The original name of Bengal was *Bang*. Its former rulers raised mounds measuring ten yards in height and twenty in breadth throughout the province which were called crossing ditches dividing fields and the like. *AL* [Sansk *āli* a mound of earth or ridge for —J. N. S.] From this suffix, the name Bengal took its rise and currency.

110. It is fortunate that the Damodar Valley and Mayurakshi projects have been launched as a *tour de force* to implement the same principles and ideals advocated by Willcocks and Bentley, resistance to which cost the country a grievous flood in 1943 and much interference with the war efforts of World War II in the Eastern Theatre, of which more anon. But it is more or less a sorry truth that a century and a half of embankments and drainage schemes across the natural level of the land have inflicted not a little injury on the fertility of the soil and diminution in the variety and seasons of crops.

Crops

111. Of the different crops grown in each district, brief mention will be made.[*] In Burdwan winter-rice or *aman* occupies about four-fifths of the cropped area. Small quantities of the early rice crops, *boro* and *aus*, are grown as also sugarcane, oilseeds, and pulses. Maize is raised in the western border, and the cultivation of jute, formerly confined to Kalna and Jamalpur, has now extended over most areas. There is a considerable amount of land under orchard and garden produce. In Birbhum more than half the cultivated area is under winter rice. Other food crops, relatively unimportant, are maize, gram, and sugarcane. There is a small amount of orchards and garden produce; mulberry is dwindling but jute is on the increase. In Bankura the chief crop is *aman* rice, but quantities of *aus* and *boro* are also grown, while sugarcane, maize, oilseeds, pulses, wheat, flax, mustard, peas and *til* are grown in small areas. Cotton used to be grown but has practically disappeared with indigo. Rice is the staple product in Midnapur, occupying nearly three-fourths of the cultivated area, of which the *aman* variety constitutes 93 per cent. Small quantities of *aus* and *boro* are also grown. The other crops are wheat, barley, peas, linseed, mustard, sesamum, sugarcane, *pan*, mulberry, tobacco, turmeric, orchard and garden produce. The cultivation of jute is increasing while cotton and mulberry have almost died out. These four districts have very small double-cropped

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[*] For the range of crops cultivated in 1794 see the Appendix "Remarks on the Husbandry of Bengal" by H. T. Colebrooke in Part IC of this volume.

areas. *Aman* rice is the most important crop in Hooghly, while sugarcane, jute, *pan*, are extensively grown. The district is noted for its market gardens of potatoes, yams, cauliflowers, cabbages, and brinjals. Apart from *aman* rice, the staple in Howrah, quantities of wheat, barley, maize, mustard, jute and hemp are also grown. *Aman* rice constitutes about 80 per cent. of the cultivated area of 24-Parganas, the only other crops of importance being pulses, grown in the winter, and sugarcane in the north-east. Nadia alone presents an exception in growing far more *aus* rice than *aman*—the area under *aus* rice occupying about three-fourths of the cultivated area. Other crops are gram, other pulses, linseed, rape and mustard, jute, wheat, and sugarcane, more and more land being put under jute in recent years. In Murshidabad *aman* rice is cultivated more than *aus*, but considerable areas are under wheat and barley. Other crops extensively cultivated are gram and other pulses and oilseeds, linseed and mustard, jute, sugarcane and mulberry. Jute is rapidly competing with the cultivation of paddy. All the three varieties of *aus*, *boro* and *aman* are grown in Malda, as also gram and other pulses, jute, hemp, tobacco, sugarcane, and mulberry. But rice and jute, as everywhere else, are the staples while mango is as important a cash crop as any other. West Dinajpur produces the three rices as well as rape and mustard, pulses and gram, sugarcane and tobacco. In Jalpaiguri rice forms the great staple crop but small quantities of barley, wheat, mustard, maize and *til* are grown. Jute is coming into its own here as elsewhere. In Darjeeling, besides rice, maize, mustard, *Kalai*, *pan*, *marua*, tobacco, and a great deal of jute in the *terai* are grown. In Cooch Behar the crops are mainly three: *aman* rice, tobacco, and jute, and owing to the profits that the last two crops fetch, the cultivation of rice is diminishing. Bamboos grow extensively. Tea is of course the most profitable cultivation in Jalpaiguri and Darjeeling but it does not fall properly under agriculture. In Sikkim by far the most important crop still is maize, and after maize, the largest areas are under *marua*, buckwheat, rice, wheat and barley. Bananas, oranges and apples are now extensively grown in orchards.

Pasture

112. Pasturage deserves to be briefly mentioned. The ill health and diminutive size of cattle in the State are proverbial and do not need to be expatiated upon. Pasturage is still plentiful in Sikkim, Darjeeling, Jalpaiguri and Cooch Behar, but except for small areas in other districts it has dwindled to critical acuteness, so much so that for miles around in Nayagram and Gopiballavpur thanas in Midnapur as well as certain areas in Bankura, there are practically no cows at all, what is left being only draught bullocks. The Grow-More-Food Campaign has hit pasturage the most.

Distribution of Industry

113. The distribution of industry is very uneven. Rural industries like the handloom, smithy, carpentry, pottery, etc., are, of course, well distributed throughout the State, but mills and factories employing power are congregated in only a few localities: the tea industry is peculiar only to Darjeeling and Jalpaiguri, while the major industries are ranged on either bank of the Hooghly river, from Kanchrapara and Tribeni in the north to Budge-Budge and Bauria in the south. All heavy industries and manufactures, except mining and extraction of metals, are concentrated here together with all conceivable small industries employing power: the reasons for concentration appear to be the availability of material at the port and railway terminii of Calcutta, the presence of cheap water transport up and down the river, the availability of municipal amenities for the working population, the presence

of roads and a network of public transport which bring workers from long distances to their places of work every day, and the availability of cheap electricity provided by the various sections of the Calcutta Electric Supply Corporation.

114. The other great centre of industry is the Asansol subdivision of Burdwan with strips of Birbhum and Bankura district on the north and the south, where all the coal mines of the State are concentrated. The proximity of the locality to the iron, clay and aluminium ores of the nearby Singhbhum, Manbhum and Chhota Nagpur districts of Bihar, the development of electricity by power supply agencies in Raniganj, Barakar and Disergarh, convenient railway terminii, have developed coal mining, iron smelting, rolling and casting, and steel making, manufacture of refractories, aluminium, paper and a number of other primary industries, while two large railway workshops and a locomotive factory, have added to the importance of this region. There is practically no other area of any industrial importance except Khargpur which maintains a large railway workshop. The most common industries employing power, distributed in almost all districts of the State, are rice mills and oil mills, saw mills, small jute presses, small electric power stations for municipal supply, and small mechanical and engineering shops for repairs. There is a heavy concentration in the four districts of Calcutta, 24-Parganas, Howrah and Hooghly of cotton ginning, baling and weaving mills, jute mills and presses, clothing mills, silk weaving mills, iron and steel mills and foundries (Belilious Road of Howrah seems to monopolise the foundries of the State). electricity stations. shipbuilding yards, chemical manufactures, bakeries, confectioneries, and other food factories, pulp, paper, and paper board mills, glass, rubber, paper tissue, motor car manufacture and ordnance factories. But even in this region jute mills and presses far outweigh in importance all other groups of industry, and it will be correct to say that the Asansol area is far more important to the State from the point of view of basic manufactures, than the more spectacular and profit-making Hooghlyside, which really abounds in derivative industries.

115. Outside of the Hooghlyside, Asansol subdivision (with small strips of Bankura and Birbhum to the south and the north), and the tea-plantations in Jalpaiguri and Darjeeling, the countryside is conspicuous for its lack of factories, industries and mills. The air is pure, unbefouled by smoke from chimneys, except what rises from cowsheds of an evening to drive away mosquitoes. The skylines of the great agricultural plains, swamps and forests are not broken by the geometrical shapes of factory roofs.

116. Before proceeding to a discussion of the material condition of the people during 1931-50, it will be profitable to make a rapid survey of the outstanding events of the decade which contributed to changes in the people's living conditions. Of these outstanding events, the State has had more than a handful.

World War II

117. Chronologically the first and most outstanding event was the outbreak of World War II in 1939. The State did not feel its brunt until January 1942, when in December 1941 Japan introduced the War in the East. Burma fell to Japan very quickly, as a result of which trade with that region ceased and the high seas became unsafe for navigation : overseas trade and industry suffered for lack of machinery and raw materials. Times became more and still more difficult up to 1945 when the War came to an end but the aftermath of the end was still more trying for the State, with its slender financial resources, as inflation, gathering its forces for some time past seized the globe in one fell swoop. But the

War conferred its benefits : the sector to receive them most was arterial communications. The Grand Trunk and Barrackpur Trunk roads were widened and improved, while a fine network of aerodromes and feeder roads in Midnapur, Bankura, Burdwan, 24-Parganas, Nadia, Jalpaiguri and Cooch Behar transformed the face of the surrounding countryside. Unfortunately the aerodromes quickly fell into decay for lack of maintenances, and owing to heavy military traffic municipal roads suffered. New derivative industries cropped up in almost every district, chiefly along the Hooghly river, while the production of coal and iron was substantially increased. The railways received a large amount of rolling stock and locomotives, while large tracts of scrub jungle were cleared and made free of malaria with anti-malarial sprays. The most spectacular anti-malarial work done by the Army was in Alipur Duars subdivision of Jalpaiguri, the district of Cooch Behar, the area around Krishnagar in Nadia, and small areas around the headquarters towns of most districts.

118. Many of the effects of World War II were lasting and continued in an aggravated form till the end of the decade. They are too numerous to be listed fully in the order of their importance, but the following are some of the most outstanding.

119. The Second World War created in the first five years of the decade an expanding economy, when India became a most important base of war for the Middle and Near East, and the Far East. This expanding economy, much too shortlived and dependent on the War to be helpful to long-term commodity production, while it dealt a grievous blow to the agrarian economy, saw the establishment of new industries, full exploitation of available raw materials, a programme of road-building and other modes of construction as never before, and plentiful employment. It released wealth and resources, which raised the standard and cost of living, and brought on an inevitable spiral of inflation. But so long as the War lasted this spiral did not inflict much damage owing to the programme of employment pursued and the import of goods and services. But as soon as the War ended in 1945, the sudden falling off in employment, withdrawal of industries, deterioration in agriculture, restrictions in exports and imports, the inability of the economic, and therefore the price, structure to adjust itself to the changed situation gave inflation unrestricted sway throughout the rest of the decade. This introduced not a small element of uncertainty and vacillation in the country's economic and industrial policy, and, consequently, in employment. The one great favourable economic factor that emerged was the Sterling Balance with the United Kingdom which gave India a Reserve Fund.

120. The second effect of the War was a rude disturbance of her agriculture from which India never quite recovered even at the end of the period. Up to 1941 India maintained a balance between her food requirements and supply which was never seriously disturbed. But during and after the War her erstwhile sources of supply and exchange were either cut off or in a serious plight themselves, as a result of which she had to cast about for new sources of supply. At home, the disturbance which the War had inflicted on agriculture, coupled with the Partition, which deprived India of the great wheat and rice-growing areas of Pakistan, and the vast Displaced population from Pakistan which became a liability on the country's agricultural resources, as only a fraction of them could be settled on agricultural lands, kept up a chronic shortage of foodgrains which makes it look as if India will take a great deal of time to be self-sufficient in food.

121. The third effect of the War was a contraction of the World even for India, the intensification of the struggle for existence, a rise in the standard as

well as cost of living, a quickened pace in living, a greater interest in the World beyond India, a greater social consciousness created by the paucity of consumer goods and such innovations as the queue in daily life and rationing in food and other requirements, a greater awareness of such world-wide anti-social ills as smuggling and black-marketing, adulteration and hoarding, disappearance of the habit of thrift as in Germany after World War I, diminishing capital formation and shyness of new enterprise.

122. The fourth great event in the wake of the War and in a distant way an effect of it calling for a regrouping of provinces was the Partition of India in August 1947, and all the consequences flowing from that great operation.

123. The War affected the movement of population in the State in many intangible as well as tangible ways. One of its results was to bring out into the open the problems of population and sustenance : the problem of population outpacing agricultural production. Another result was the quickening of the pace of urbanisation without a corresponding acceleration of lasting industrialisation, leading as a result to more submarginal living. Other great events during the decade led to an intensification of the problem. Of these the main are: the great cyclone of October 1942, the Bengal Famine of 1943, the Damodar Flood of 1943, the Grow-More-Food Campaign initiated in 1943-44, the Great Killing of August 1946, the Partition of August 1947, and, in a minor way, the riots of March 1950 and the North Bengal Flood of June 1950.

Midnapur Cyclone, 1942

124. A brief review of the Midnapur Cyclone of October 1942 is quoted below from the special reports of the Director of Meteorology of Poona:

SEVERE BAY STORM OF 14TH TO 18TH OCTOBER, 1942,

The surface and upper wind charts on the morning of the 11th showed that weather was unsettled in the southwest Bay. On the night of the 11th a severe typhoon was reported to have sunk the French 1900-ton steamer 'Laos' off the coast of Indo-China. This typhoon apparently moved west-north-westwards and crossed over into the central Bay of Bengal where conditions became markedly unsettled on the morning of the 12th. Pressure continued to fall over the north and central Bay during the next 48 hours and by the morning of the 14th a depression formed in the Bay with its centre within two degrees of Lat. 17° N., Long. 90° E. Heavy showers were reported by aircraft flying off the Arakan-Chittagong coast on the morning of the 14th and by midday, rain had commenced along the Chittagong coast. Moving in a north-north-westerly direction the depression intensified into a cyclonic storm by the morning of the 15th when it was centred within a degree of Lat. 18½° N., Long. 88½° E. It then took a northerly course and was centred about 80 miles southeast of Chandbali on the evening of the 15th. Continuing to intensify during the course of the day, it had become a severe cyclonic storm by 3 hours of the 16th with its centre about 150 miles south-south-west of Calcutta. The surface wind at Sandheads attained a force of 7 B. S. at 22 hours of the 15th and increased to 9 B. S. at 2 hours of the 16th. Following a northerly track the severe cyclone was located at 8 hours of the 16th about 90 miles to the south-south-west of Calcutta. The barometric pressure at 8 hours of that date was 0·40″, 0·48″ and 0·57″ below normal at Chandbali, Saugor Island and Sandheads respectively, the surface wind at Sandheads indicating that the central region of the severe storm was very close to the station.

By the evening of the 16th the severe cyclone struck the south-west Bengal coast between Saugor Island and Balasore (about 55 miles southeast of Midnapore). It then curved north-north-eastwards slowly diminishing in intensity and was centered as a storm on the 17th morning near Krishnagar where the pressure at 8 hours was 0·46″ below normal. Thereafter moving in the same direction the storm weakened rapidly and was centred as a depression on the 18th morning near Rajshahi. It rapidly filled up over north Bengal during the course of the day.

Calcutta although not actually traversed by the centre of the storm, still experienced gales throughout the night of the 16th. The maximum force was felt between midnight and 1 A.M. when a gust of 68 m.p.h. was recorded. With the northward movement of the storm, the wind at Calcutta gradually veered from E on the 16th evening to SW on the morning of the 17th.

The storm was responsible for heavy loss of life and devastation in the districts of Midnapur and 24-Parganas. There was also some loss of human life and livestock and damage to house property in the areas of Jallesore, Bhograj, Baliapal and Singla in the northern part of the Balasore district. Associated with the storm, widespread and locally heavy rain fell in southwest Bengal. Some of the district averages of rainfall and particularly heavy falls associated with the storm are given in the tables below:

District averages

Province and District	Amount	Date
Bengal		
24-Parganas	1·7 & 3·0	16th & 17th respectively
Nadia	2·2 & 2·5	ditto
Murshidabad	1·7 & 4·3	ditto
Burdwan	4·5	17th
Birbhum	2·4 & 2·6	16th & 17th respectively
Bankura	2·7	17th
Midnapur	8·0 & 2·5	16th & 17th respectively
Hooghly	3·3 & 2·4	ditto

Particularly heavy falls

Station and District	Amount	Date (October)
Dumkal (Murshidabad)	7·7	17th
Lalgola (Murshidabad)	8·1	18th
Burdwan (Burdwan)	7·1	17th
Katwa (Burdwan)	7·4	17th
Mangalkot (Burdwan)	7·0	17th
Indas (Bankura)	7·1	16th
Siromanipur (Bankura)	7·7	16th
Patrasair (Bankura)	7·9	17th
Tamluk (Midnapur)	7·4	16th
Dantan (Midnapur)	12·7	16th
Khargpur (Midnapur)	11·5	16th
Contai (Midnapur)	8·1	17th
Midnapur (Midnapur)	12·8	17th
Balichak (Midnapur)	8·5	17th
Tarakeswar (Hooghly)	7·5	16th
Chanditala (Hooghly)	7·3	17th
Uluberia (Howrah)	7·3	17th
Balurghat (Dinajpur)	8·2	18th
Jallesore (Balasore)	14·5	17th

A brief history of the storm just before and after it struck the Bengal coast is given in the following extract from the speech of the Revenue Minister of Bengal made before the Bengal Legislative Council:

> A heavy cyclone from the Bay passed over several districts of Bengal on October 16. It began about 7 or 8 o'clock in the morning and spent itself in the early hours of the next morning. In the afternoon of October 16, there was a high tidal bore forced up by the cyclone from the Bay which broke into the mainland and devastated a considerable area in the southern part of Midnapur and the 24-Parganas districts. The cyclone was accompanied by heavy rain at certain places; it was as heavy as 12" in less than 24 hours. All the rivers in these districts were in heavy flood due to the tidal bore, rain and force of wind. In the worst affected areas there was a heavy loss of human lives —the present estimate being not less than 10,000 persons in the Midnapur district and 1,000 in the 24-Parganas district.
>
> The loss of cattle was even heavier—nearly 75 per cent. As to houses, practically every kutcha house was severely damaged or destroyed and only pucca houses except those with corrugated iron roof remained standing.

125. The Midnapur Cyclone which happened about eight months before the Great Famine produced severe distress in the affected areas, which had not recovered from the first disaster before the second struck. Throughout an area of about 3,500 square miles, out of the State's present 31,000, famine conditions and economic disorganisation preceded their appearance elsewhere. Relief measures taken in Midnapur at the end of the Cyclone gradually merged into the broader measures of famine relief that came shortly after with hardly a respite in between. Already imports from Burma, which amounted to about 2 million tons of husked rice annually, had stopped completely; air alerts and raids in and around Calcutta had interfered with communication leading to accumulation of stocks upon private account; the 'Denial Policy', Military Purchase, and purchase by military contractors had led to the cornering of quantities of rice in pockets (hoarding). And now the Cyclone devastated four of the greatest rice-producing districts in the State in October 1942—Midnapur, 24-Parganas, Barisal (East Bengal) and Dinajpur (partly East Bengal).

126. The Cyclone did very serious damage. Some 14,500 people and 190,000 cattle were killed and dwellings, food-stores, and crops destroyed over a wide area. Corpses and ruins littered the countryside. Military units in the area, who themselves suffered some loss of life, took the initiative in the clearance of debris and the removal of the dead. Extensive relief measures were soon undertaken and between November 1942 and May 1943, over 20 million rupees were spent on relief in the affected areas. These measures were thereafter merged with those for famine relief when the effects of the general famine reinforced those of the Cyclone.

127. The Midnapur Cyclone was in fact a very serious catastrophe and, as

will be discussed in a later chapter, together with the Famine of 1943 devitalised and decimated the population of several police stations of Midnapur and 24-Parganas districts. Even in 1951 the population had not recovered from the shocks it had received in the two events.

128. After the Cyclone came crop disease. The damage was caused by fungus and 'root-rot' to the *aman* crop which did not have a propitious start at all. This *aman* crop of 1942 was to provide the main supply of rice for the year 1943, but according to the Government of Bengal the *aman* crop suffered from drought in the sowing season and after October suffered from the effects of crop disease, whose effects were even more serious to the outturn than the damage caused by the cyclone. The *aman* crop reaped at the end of 1942 was thus seriously short and set the stage for the Famine of the following year.

The Famine of 1943

129. Before turning to an account of the effects of the Bengal Famine of 1943, with which the Report is chiefly interested as affecting the State's population, it will be profitable to recount the causes of the Famine as enumerated by the Woodhead Inquiry Commission in April 1945.

130. The crisis in Bengal which culminated in the Famine began by the end of December 1942. The shortage of supplies developed rapidly in Greater Calcutta and became acute in March 1943. The measures taken by the Central and Provincial Governments succeeded in averting a catastrophe in Greater Calcutta which was then the main base of War, but the disaster broke out in all its fury in the interior of the State and came to an end only with the reaping of the *aman* crop in December 1943.

131. The Woodhead Famine Inquiry Commission listed the following as the causes of the Bengal Famine:

I. During 1943 (a) owing to a shortage in the yield of the winter rice crop (*aman*) of 1942, combined with (b) a shortage in the stock of old rice carried forward from 1942 to 1943, there was a serious shortage in the total supply of rice available for consumption in Bengal as compared with the total supply normally available.

II. Out of the total supply available for consumption in Bengal, the proportionate requirements of large sections of the population who normally buy their supplies from the market, either all the year round or during a part of the year, were not distributed to them at a price which they could afford to pay. This was due to: (a) the incapacity of the trade operating freely in response to supply and demand, to effect such a distribution in the conditions prevailing; and (b) the absence of that measure of control, by the Bengal Government, over-producers, traders and consumers in Bengal, necessary for ensuring such a distribution.

III. The supply of rice and wheat which, under normal conditions, would have been available to Bengal from sources outside the province, was not available during the closing months of 1942 and the early part of 1943. This was due to (a) the loss of imports from Burma; and (b) the delay in the establishment of a system of planned movement of supplies from surplus provinces and States to deficit provinces and States.

132. There were other reasons also. Certain military policies within the province which led to fortuitous accumulation of large stocks upon private account, both physically and proprietarily, and gave rise to the great antisocial phenomenon of hoarding and profiteering, which the Commission mentions as Cause II(b). These military policies in Bengal, which in 1942 was almost a fighting front, were (1) the Denial Policy by which a large number of boats and rice stocks were destroyed, rendering impossible their

movement to deficit areas; (2) the buying up and cornering by military authorities of large stocks for their forces as well as in pursuance of a scorched earth policy; and (3) the cornering of large stocks by military contractors and a new class of rice merchants who ruled the roost by sheer preponderance of capital in their hands.

133. The total mortality caused by the Famine of 1943 has been discussed by the Bengal Famine Inquiry Commission. According to figures published by the Public Health Department, 1,873,749 persons died in Bengal in 1943. The average number of deaths reported annually during the previous 5 years, 1938 to 1942, was 1,184,903, so that deaths in 1943 were 688,846 in excess of the quinquennial average. Nearly all the famine mortality occurred in the second half of the year. During the first 6 months mortality was only 1·9 per cent. in excess of the quinquennial average. From July to December 1943, 1,304,323 deaths were recorded as against an average of 626,048 in the previous quinquennium, representing an increase in mortality of 108·3 per cent.

134. Death continued to take its toll in 1944. 'In the first six months of 1944, 981,228 deaths were recorded, an excess of 422,371 over the quinquennial average. The death rate during the year from July 1943 to June 1944 reached 37·6 per *mille*.

Professor K. P. Chattopadhyaya of the Department of Anthropology, Calcutta University, made an estimate of the total mortality in 1943—3·5 million deaths—which received wide publicity. This was based on surveys of sample groups in the worst famine areas, in which the mortality rate was 10 per cent., and it was assumed that two-thirds of the population of the province were equally affected by the famine. The method of investigation followed cannot be accepted as statistically sound; to estimate the provincial death rate from a sample of this nature is unjustifiable. When the famine was at its height dead and dying people were all too visible in famine-stricken areas, and it is natural that in such circumstances exaggerated estimates of mortality should have gained credence.

135. While the Commission did not accept popular estimates of mortality, it was nevertheless of the opinion that the official figures underestimated the total number of deaths. In spite of the conditions generated by the Famine, there was no universal breakdown in 1943 in the system of recording deaths. After due consideration of the available facts the Commission was of the opinion that the number of deaths in excess of the average in 1943 was of the order of one million—that is, some 40 per cent in excess of the officially recorded mortality. The Commission added that it had no valid reason for accepting estimates in excess of this figure. On the othef hand, the high excess mortality in 1944 must be added to the toll of this mortality, and on this basis the Commission concluded that about 1·5 million deaths occurred as a direct result of the Famine and the epidemics which followed in its train.

136. The way in which this mortality affected the age and sex composition of the population varied from district to district.

137. The preponderance of male deaths was confirmed by a sample survey carried out in various rural areas by Sri T. C. Das, Lecturer in Social Anthropology, University of Calcutta. Of 4,833 deaths investigated, 56·7 per cent. were male and 42·3 per cent. female. The same trend was shown in the records of deaths in famine hospitals in various centres. The excess in male deaths was more marked in the adult age groups. Up to 10 years of age the increase in mortality was almost equal in both sexes. In the age group 10 to 15, the rise in the number of male deaths was somewhat greater than in the case of female deaths, but the difference is not striking. In the groups between 10 and 60 male deaths were in the proportion of 52 to every 44 female deaths.

138. As regards mortality by age, reported deaths of infants under one month were very small. The number of deaths in infants aged 1 to 12 months

increased, but the total deaths under one year declined as a result of the fall in neonatal mortality. A large number of deaths occurred in the age groups 1 to 5 and 5 to 10. The number of deaths in old people over 60 was also high, 247,556 as compared with the quinquennial average of 154,405. The age groups 1 to 10 and 60 and over contributed between them 274,810 of the excess deaths in 1943, but since mortality in these groups is normally high, their excess mortality was slightly lower than that in the intermediate age groups.

139. Mortality in Calcutta in 1943 shows different trends from those shown by the data for the whole province. The proportionate increase in male and female deaths was reversed, the former being 52·7 per cent. in excess of the quinquennial average and the latter, 72·2 per cent. The percentage increase in female deaths exceeded that in male deaths in almost all the age groups. The total number of male deaths reported was greater than that of female deaths, but this is due to the preponderance (about 2 to 1) of males over females in Calcutta. The greatest excess mortality in Calcutta was recorded in the age groups 1 to 5, 5 to 10, and over 60, the percentage increase in mortality in these groups being 223·1, 85·1 and 192·6 respectively. The mortality statistics thus confirm the impression that women, children, and old people were in the majority in the famine-stricken population which sought food and relief in the capital. It may be added that the recording of deaths in Calcutta was likely to be more accurate than elsewhere in Bengal, since no dead body can be disposed of by cremation or burial without notifying the municipal health authorities.

140. The Commission was of the view that in the province as a whole famine mortality was greater among men than in women. There were, however, places such as Calcutta where the reverse was the case. "Assuming", said the Commission, "the higher male mortality to be a fact, it is by no means easy to suggest reasons for it. Possibly men, with larger food requirements than women, suffered more acutely as food supplies dwindled away to nothing. Men may have attempted, more often than women, to remain at work in spite of increasing starvation, and thus used up their bodily reserves more rapidly. Again, women and children may have sought relief at food kitchens more readily than men".

141. A considerable fall in the birth-rate unquestionably occurred. Certain districts took as long as 1947 to return an excess of births over deaths in the annual totals. Most districts took as long as the middle of 1946 to register an excess of births over deaths. The following paragraph is taken from *Vital Statistics 1941-1950* by Mitra and Choudhury.

> Only two districts Hooghly and West Dinajpur showed a small excess of births over deaths in 1943 and Darjeeling showed a small excess in respect of female births. All other districts went down heavily under the sickle of death, whereas none of them, except Calcutta, where a trend of depopulation seems to be chronic up to the end of 1948, had shown signs of a decreasing population up to 1942. Between 1881 and 1890 there was a bad famine and the Census Report for 1891 had occasion to observe how it took from three to four years to restore the vitality of the worst affected tracts. A similar period was taken after 1943. Births touched the lowest mark in almost all districts in 1944 the year immediately after the famine, while they touched the highest in 1946. The excess of deaths over births continued in Burdwan, Bankura, Midnapur, 24-Parganas and Malda in 1943 and 1944; in Howrah, Nadia, Murshidabad, Jalpaiguri and Darjeeling through 1943, 1944 and 1945. In Calcutta excess of deaths over births chimed in with this trend and swelled the figures inordinately. Birbhum took the longest time to recover; excess of deaths over births continued till the end of 1947 to recover slightly in 1948 and 1949 to relapse again in 1950.

142. The falling off in the number of live births during the Famine is presumably due largely to an increase in the incidence of abortion, miscarriage and still-birth resulting from malnutrition and disease. It is well known that a woman's capacity to bear living children

is impaired by malnutrition, while malaria frequently leads to abortion. The disruption of family life must also be an operative factor, particularly in the later stages of famine.

143. The course of mortality may be briefly traced. The account is confined to West Bengal districts only. The Famine first made itself evident in Rangpur, Mymensingh, Bakarganj, Chittagong, Noakhali and Tipperah, curiously enough all great rice-producing districts in East Bengal. In July the reported death-rate was above the average in all West Bengal districts except Hooghly and Malda, but the rise was of a comparatively small order. From August onwards, the number of deaths rose rapidly, reaching its peak in December. The death rate in Calcutta, unlike that in the province as a whole, reached its peak in October 1943. The decrease in November and December was due to the distribution of food, the increase in hospital accommodation, the better care and treatment of patients, and the removal of destitutes to camps outside the city.

144. Study of the mortality recorded in the various districts in Bengal in 1943 and 1944 reveals some important facts. Some districts are normally surplus in rice supplies, others deficit, while a third group is more or less self-supporting. In 1943, the usual order in this respect was disturbed in various ways. Thus, Midnapur, usually a surplus district, was heavily deficit in 1943 as a result of the cyclone, which produced famine conditions and serious health problems before the Famine began. Again rice supplies in certain districts in West Bengal, normally surplus, were reduced as a result of the short crop. No satisfactory information about rice supplies in any district, in relation to the needs of the population, is in fact available, making comparison difficult between mortality and the degree of scarcity district by district. Comparison is also affected by the migration of famine victims, who in general tended to wander from the worst areas to places where they had at least some hope of obtaining food. In spite of these facts, aggravated by the general inaccuracy of the mortality figures, certain rough conclusions can be drawn. Early in 1943 Burdwan, Birbhum, Malda, West Dinajpur and Jalpaiguri in West Bengal were regarded as "buying areas" by the Bengal Government. It is impossible to say how far these districts were genuinely surplus: in Burdwan, for example, crops in two subdivisions had been damaged in 1942 and 1943, by insect pests and flood. But at least scarcity was less acute in them than in certain other parts of the State. In the districts declared buying areas, excess mortality ranged from 2·8 per cent. in Malda to 60·5 per cent. in Birbhum. In none of the others did it exceed 45 per cent. In the remaining districts excess mortality exceeded 50 per cent. in Murshidabad (96·5), Howrah (71·5), 24-Parganas (76·1), Midnapur (58·1) and Nadia (82·4). Of these, Midnapur was in a special category, while Howrah and 24-Parganas, which are near Calcutta, were subject to the drain of the Calcutta demand. 24-Parganas had also suffered to some extent from the Cyclone. In certain subdivisions of Murshidabad, the *aman* crop of 1943-44 was a total failure.

145. Thus, in a very broad way, mortality during the first six months of the Famine was related to the degree of local scarcity. But in almost all the districts, whatever their position as regards production and supplies of rice, there was some increase in the death-rate. The rise in price was general and led to starvation even in districts which were not obviously deficient in their total supplies. Further, epidemic diseases were not confined to the areas in which food shortage was most acute.

146. In the first six months of 1944 there was a general rise in the death rate in those districts which had not suffered severely in 1943, while it continued on a high level in most of the latter. In Birbhum, 24-Parganas,

Murshidabad, and Malda excess mortality in the first six months of 1944 exceeded 90 per cent., Malda being the worst affected. In other districts it ranged from 26 to 86 per cent. Almost the whole of West Bengal, except Darjeeling and Cooch Behar, was affected, in greater or less degree, by the Famine, and the outbreaks of epidemic disease associated with it. The extent of the area involved made the problem of combating epidemics and providing medical relief an enormous one.*

The Damodar Flood of 1943

147. Passing mention must be made of the Damodar Flood in Burdwan in July 1943, which aggravated the Famine of that year. A moderate flood of the river Damodar breached the left embankment near Amirpur in Burdwan on the night of the 16th July 1943. There was an old course of the river, Debidaha, just outside the embankment. The river found its way into this Daha and overflooded the country between Saktigarh and Kalna. The three main drainage channels of this part of the country, the Banka, the Behula, and the Gangur, having been choked up with silt and weeds due to disuse, could carry only a fraction of the total discharge through the breach alone which was estimated at over 200,000 cusecs. The countryside was flooded to a depth of 6 or 7 feet at places and many villages were destroyed. All road and railway traffic had to be suspended between stations above and below Burdwan between the 18th of July and the 8th of October 1943. The cost to the East Indian Railway in terms of traffic diversions alone amounted to more than Rs. 5·3 million, while repairs to roads and railway including construction of new waterways, culverts and bridges undoubtedly amounted to several times the cost of traffic diversion. The breach hampered the defence measures of Eastern India at a critical point of the War. According to military experts, the flood alone was responsible for holding up operations on the Burma Front by no less than six months! Although the actual losses in human life were not heavy, the flood accentuated scarcity in and around Burdwan district.

The Grow More Food Campaign

148. In July 1943 the Governor General appointed a Foodgrains Policy Committee which under the chairmanship of Theodore Gregory initiated what came thereafter to be known as the Grow-More-Food Campaign. An immediate result of the Committee's findings and the "most unsatisfactory position regarding agricultural statistics relating to production, distribution, export, consumption and stocks", was the comprehensive *Agricultural Statistics by Plot to Plot Enumeration in 1944-45* conducted by H. S. M. Ishaque and C. C. Sen which still remains the standard reference of all agricultural statistics in West Bengal. Following the Famine and realising the necessity of increasing the agricultural production of the State, the Government accepted the following basic resolutions which they have improved upon as the years passed:

1 Government should encourage the large-scale distribution of improved seed.
2 Government should promote the production of compost from night-soil and town-refuse.
3 Industrialists are to be assisted to import plant and technical advice for the manufacture of Ammonium Sulphate.
4 Government should promote with all energy and expedition such irrigation and drainage schemes as promise quick results.
5 It is necessary to prevent depletion of India's serviceable milch and and draught cattle by the vigorous enforcement of the prohibitions recommended by the Central Food Advisory Council.

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* The above paragraphs have been largely borrowed from the Report of the Famine Inquiry Commission in Bengal, 1945, pp. 108-115.

6 Government should issue an adequate amount of iron and steel to peasants to enable them to replace and repair worn-out or defective agricultural implements.

7 Government should take steps to import tractors and other agricultural implements and their parts.

8 Government should afford facilities to agriculturists to enable them to secure the fuel and lubricating oil required for tractors and other agricultural machines.

9 Government must issue rules immediately to regulate crop production, and compel the cultivation of culturable waste lands.

10 Government should take steps to improve the law in respect of land settlement in various districts.

11 Government should order that rice should be under-polished in rice mills.

12 Government should assist rice mills to obtain sufficient supplies of mill stores.

13 Government should take steps to increase the strength of the Department of Agriculture.

14 Government should adequately endow schemes of research especially those which have a bearing upon the immediate short-range problems of food production.

Rationing and Controls

149. Apart from the resolutions on the Grow-More-Food Campaign, a very important consequence of the Foodgrains Policy Committee's recommendations was the introduction of various measures of control over the supply and price structure of every conceivable article of common consumption: every kind of food, edible oils, salt, solid and liquid fuel, cloth, building materials, medicines, and hundreds of other things. This control was followed up by rationing. Two Orders which controlled the life of the common man as never before were passed: the Foodgrains Cont Order of 1942 and the Bengal Rationing Order of 1943. These Orders marked the end of free trade for the rest of the decade and brought about a quick and thorough revolution in the habits of the people. They fixed on the Government the responsibility of ensuring the supply of essentials to the public, and by the Rationing Order introduced (*a*) areas of complete and overall rationing of all commodities within which a citizen was debarred from procuring essential articles through channels of free trade except through Government-sponsored "control shops"; (*b*) and areas of "modified rationing" where the Government assumed the responsibility of supplying minimum quantities of essential commodities including foodgrains to citizens under a certain economic level.

150. These two Orders worked in two different ways. On the one hand they acted as a great stabilising force upon the economy of the country torn between hoarding, smuggling, profiteering and blackmarketing, and was instrumental to the saving of a large section of the population from the tender mercies of antisocial traders, although they saddled the Government with new responsibilities to which it was not accustomed, and in the discharge of which it came in for a great deal of obloquy. On the other hand controls, queues and rations brought about a silent revolution in the life of the community and introduced overnight new hardships but a new social consciousness, and a new social discipline. There was a third, quite important, but sinister consequence. Controls and rations being irksome and seldom entirely satisfactory, they gave birth to a new genre of smugglers and blackmarketers who stuck to the body-politic as a malignant cancer.

The Great Calcutta Killing, August 1946

151. On the 16th of August 1946 Calcutta city touched off the first of a

series of Killings throughout India which culminated in the Partition of the subcontinent into two separate States exactly a year later on the 14th-15th of August 1947. *The Statesman*, a British-owned paper which was in a more dispassionate frame of mind to judge than most other papers in India, in a leader on the 18th August, put the blame of the Killing of the 16th and later fairly and squarely on the Direct Action Resolution of the Muslim League Government then in power over Bengal. It is beside the point to go into the causes of the incidents of the 16th of August carnage and it will be enough to confine this narrative to a brief survey of its results.

152. The following is an extract from *The Statesman*, Vol. CXII, No. 22814, dated Calcutta, Tuesday, August 27, 1946 (page 1, col. 2).

> Up to yesterday afternoon 3,468 bodies were removed from streets, hospitals, morgues, sewers, canals and rivers in Calcutta and Howrah and disposed of by Government and private corpse disposal organizations and by the military.
>
> The above figure, which was supplied by a Government official, does not take into account bodies carried by the tide down the Hooghly and those still lying in deserted houses, back alleys and in sewers, and largely substantiates *The Statesman's* estimate of 4,000 dead, published on August 22.
>
> Total admissions to all Calcutta hospitals, according to the same official, were 4,421. Of these, 2,827 had been discharged and 1,311 were still in hospitals up to yesterday.
>
> The exodus of people from Calcutta continues to decline. The E.I.R., which had run special trains to Moghulserai on the four previous days to meet the rush of passengers, did not deem it necessary to operate special.
>
> Official estimates place the figure of those who have fled from the city at 150,000. Of these, about 22,444 left by the E.I.R. on Sunday and yesterday and 6,000 by the B.N.R. Figures for Sealdah station (Bengal Assam Railway) are not yet available.
>
> Some 185 refugee centres have so far been opened in the city and registered with Government, most of them, however, being able to accommodate only a small number of people. The number of refugees accommodated in these centres reached a maximum of 130,000 at one time but on Sunday it had dwindled to 90,000.

153. On August 22, 1946, *The Statesman* had noted that " after five days and nights of slaughter, it can be reliably estimated that anything up to 15,000 people are dead and injured. Of these, the death-roll amounts to something like 4,000. Our previous figure of between 2,000 and 3,000 was substantially under-estimated ".

154. On August 21, 1946, *The Statesman* came out with a leader the title of which has hung to West Bengal as a hated appendage ever since. It was called the ' Problem Province ' and said:

> Between 1941 and 1945, because of its proximity to the War, of the peculiar inefficiency of its administrative machine, and in particular of the great disaster of the '43 famine, Bengal became the problem child among India's family of Provinces. This month's inexcusable carnage and confusion in her capital, conditions unexampled of their kind in India's history, have thrust her once again into that unenviable position.

155. The events of Calcutta were soon followed up by a series of even more terrible riots in Bihar in September of that year, which were taken up by another series of riots in Noakhali in October 1946. While in Calcutta Hindus and Muslims seemed to have had it equally in the neck, in Bihar it was the Muslim and in Noakhali it was the Hindu who suffered. This appears to have been anticipated by *The Statesman* as early as August 23, 1946, when it addressed an editorial to the (Muslim) League:

> Unless the shamefully placed League, at this critical juncture, faced by the Great Calcutta Killing, can show itself great-hearted enough to modify its mistaken Bombay programme, further such suffering by the helpless and harmless, in other cities of this hugely populous land during coming months, is in our view almost inevitable.

156. It is possible at this distance of time to minimise the psychological shock or trauma which the events of August 16, 1946, inflicted on contemporary life and shaped the exodus between the two Bengals immediately after the Partition. That subsequent events would take shape so swiftly and irrevocably may be read in the

following account of *The Statesman* published in an editorial, dated August 20, 1946 (Vol CXII, No. 22807):

> When we wrote two days ago conditions in Calcutta were horrifying. They have passed beyond that since, whatever the appropriate adjective is. They were tolerable then in comparison with what was subsequently seen. At the latest estimate the dead are about 3,000, and they have lain thick about the streets; the injured many thousands, no one will risk saying how many; dwellings and business premises burnt, looted, damaged also many thousands. The fire brigade reports 400 calls and 4 fires to each call, with 1,000 calls that could not be answered. This is not a riot. It needs a word found in mediaeval history, a fury. Yet 'fury' sounds spontaneous, and there must have been some deliberation and organization to set this fury on its way. The horde who ran about battering and killing with 8 ft. lathis may have found them lying about or bought them out of their own pockets, but that is hard to believe. We have already commented on the bands who found it easy to get petrol and vehicles when no others were permitted on the streets. It is not mere supposition that men were imported into Calcutta to help in making an impression.
>
> The city, though now quieter, is still uneasy. In many areas Calcutta is like a town that has just known a heavy air-raid. On all sides are death, injuries, destruction. Houses have been destroyed with the men, women and children in them. Men have returned home in the evening to find neither home nor wife nor children. The homeless are lying about unsheltered and starving, along the streets, in any open space, wherever they can find room or a little hospitality. Some who gave shelter to the homeless have been dragged out and bludgeoned for doing it. In all the hospitals the injured lie crowded, on beds, floors, even in the open. Doctors and nurses are at it day after day and all day long. Thousands are brutally hurt. Smashed jaws, burst eyes, fractured limbs, crippled men, women and children, are a kind of political argument that the twentieth century does not expect. The city will be lucky if epidemics do not come from the accumulated filth and the slaughter. There is every reason why the Government should at once give all its thought and attention to plans for relief of the suffering. The military have shown promptitude in doing all they can.

The Partition of Bengal, August 1947

157. The next great event was the Partition of Bengal on 14-15th August 1947 and the emergence of West Bengal as a State in the Union of India. The Partition led to great waves of migration between the two parts of Bengal which will be dealt with fully in later chapters. Suffice here to mention the salient features of the great migration that was set afoot by the Great Calcutta Killing of August 16, 1946, and continues to this day.

158. Between 1946 and 1947 a large number of Bihari Muslims were accommodated in relief camps in Burdwan, Midnapur and Hooghly districts, who later migrated to East Bengal. After the Noakhali Riots in October 1946 Hindus began to migrate from East Bengal to West Bengal districts, a process which was greatly accelerated by the Partition. The Partition sent away a considerable number of Muslim service-holders from West Bengal districts, while their families stayed behind, and a number of Muslim merchants from Calcutta in search of fortune to East Bengal. Steady immigration of Hindus from East Bengal continued up to the end of 1949 when the Government of India's decision to devaluate the rupee, and the Government of Pakistan's decision to uphold the value of the rupee, led to a major economic crisis approaching a dangerous slump in East Bengal. A blind way of reacting to the slump in East Bengal was the touching off of a series of fresh and bloody communal outrages between December 1949 and February 1950 in that State which diverted the popular mind from the impending financial crisis to a new readily understandable engagement. But this diversion let off a chain reaction in West Bengal leading to communal riots in this State as well, as a result of which a further exchange of population took place between East and West Bengal. The following is a brief statement of persons immigrating from East Bengal and Sylhet into West Bengal, Chandernagore and Sikkim between 1946 and 1951.

STATEMENT 0.15

Statement of persons immigrating from East Bengal and Sylhet into West Bengal Chandernagore and Sikkim between 1946 and 1951

		1946	1947	1948		1950	1951	Total
West	Male :	24,320	206,517	223,598	140,641	492,700	16,238	1,104,014
	Female :	20,304	171,382	195,420	132,951	432,485	14,641	967,183
	Total .	*44,624*	*377,899*	*419,018*	*273,592*	*925,185*	*30,879*	*2,071,197*
Chandernagore	Male :	40	700	696	402	891	8	2,737
	Female :	21	413	405	291	1,253	21	2,404
	Total .	*61*	*1,113*	*1,101*	*693*	*2,144*	*29*	*5,141*
Sikkim	Male :	..	6	..	..	..	..	6
	Female :	..	4	1	..	..	..	5
	Total .	..	*10*	*1*				*11*

159. There were minor floods in Malda and Murshidabad in 1948, but crops continued to be unsatisfactory from 1947 onwards. In January 1950 Cooch Behar became a West Bengal district but its coming did not alleviate the food position of the State as a whole which continued to be precarious and unsatisfactory throughout 1948-50.

160. In the first fortnight of June 1950 unusually heavy rain fell within 72 hours in the Darjeeling and Sikkim hills causing severe landslides and extensive damage to property and plantations in those two districts. Loss of life and cattle was inconsiderable but it took the Government a great deal of time and money to restore communications and confidence. Simultaneously the Tista rose in flood in Jalpaiguri district and washed away a large and valuable forest and laid much agricultural land in that district waste. This cyclone inflicted varying degrees of damage on almost all districts of West Bengal.

161. In his Census Report for 1931 the Superintendent of Bengal discussed changes in the material condition of the people during the decade 1921-31 under the following main heads: (1) Natural conditions during 1921-31: floods and droughts; (2) Crops; (3) Prices; (4) Wages in industrial districts; (5) Cost and Standard of living; (6) Indebtedness; (7) Registration of property; (8) Progress of the main industries; (9) Material condition of the people: price of jute and prices of rice; (10) Economic conditions and crime; and (11) Civil litigation and economic condition.

162. In the late census the population has been conveniently grouped under eight main livelihoods and it may be profitable to survey the material condition of the population under each of these eight classes instead of an all-too-general account of the decade. Owing to the Famine of 1943, the Second World War, and the inflationary spiral raising its head since 1942, the decade recorded an unprecedented rise in the cost of living, rapidly outpacing all pre-1940 bases. As will be presently seen not only did the cost of living rise several times above that of 1939, but there were changes also in the standard of living. But the difference lay more in a phenomenal rise in the cost of living, as a consequence of the cheapening of money, than in substantial improvement in standards. The standard of living rose insofar as it took advantage of the slack between rising incomes and rising prices of articles of daily consumption until both drew almost proportionately level in 1950-51. That is to say not that vastly more of consumable goods began to be produced or imported but prices of these goods rose to amazing ceilings. To the Government of 1944-47 goes the credit of conducting several very efficient surveys with a view to finding out the agricultural position of the State, and the material condition of the rural and suburban population. Of the great *Agricultural Statistics by Plot to Plot Enumeration* conducted in 1944-45 by Ishaque and Sen mention has already been made. This Survey still provides the basis of whatever agricultural data that are trotted out by spokesmen of agriculture in West Bengal. In addition, three more surveys were carried out during 1946-47: (a) *A Short-Term Inquiry into the Living Conditions of the Bengali Middle Class Bhadralok with a view to Estimating a minimum wage*: this was conducted in 1946 by the Government's Statistical Bureau in continuation of a survey conducted by the Government of India's Economic Adviser in respect of the material condition of the Central Government Servants in 1946; (b) *An Inquiry into Rural Indebtedness in Bengal 1946-47*, the final report of which in respect of West Bengal only was published as late as 1952; this inquiry was held under the auspices of the Indian Statistical Institute, Calcutta, but under the supervision of an Assistant Secretary to the Government; (c) simultaneously with the latter inquiry and perhaps based on the same sample grids, as the notes on the selection of samples in both cases seem to indicate, was held *An Inquiry into the Condition of Agricultural Labourers in Bengal in 1946-47*, the final report of which in respect of West Bengal only is now in the press shortly to be published, with a proof copy of which the writer has been favoured: this inquiry also was held under the auspices of the Indian Statistical Institute, Calcutta, but under the supervision of an Assistant Secretary to the Government. In 1949 the Government published another illuminating *Report on a Sample inquiry into Living Conditions in the Bustees of Calcutta and Howrah, 1948-49*, this inquiry was conducted by the State Statistical Bureau.

163. These documents throw a great deal of light into the economics of rural and urban households during 1945-47.

In addition there are several still more valuable documents which give us a picture of the decade 1930-40, and between 1940 and 1945. They are (i) the Report of the Provincial Banking Inquiry Committee, 1930; (ii) the Preliminary Report of the Board of Economic Inquiry on Rural Indebtedness, 1935; (iii) the Report of the Land Revenue Commission, Bengal, 1940, commonly known as the Floud Commission Report; (iv) the Report of the Foodgrains Policy Committee, 1943; (v) the Report of the Famine Inquiry Commission, Bengal, 1945, commonly known as the Woodhead Commission Report; and finally (vi) the Report of the Central Pay Commission, 1947.

164. On conditions later than 1947, especially relating to industrial labour of various categories, the West Bengal Government published in 1950 a volume of *Awards made by the Tribunals during 1947*, in the same year an award given that year in respect of "industrial disputes between 64 specified engineering firms and their workmen"; and in 1951 an award given that year in respect of "industrial disputes in the Jute Textile Industry in West Bengal between 89 specified jute mills and their workmen". Casting a long shadow over these awards, however, were the Recommendations of the Central Pay Commission of the Government of India which set the standards of wages and salaries eventually acknowledged in all Government services and ushered in a period of industrial and economic stability.

165. This literature pieced together along with the "Middle Class Cost of Living Index For Calcutta" published every month for the Bengal Chamber of Commerce by *Capital*, a trade journal in Calcutta, may provide a fairly reliable account of the material condition of the ten years under review. And since information can be sifted relating to each of the eight major livelihood classes, an attempt is made below to describe changes in the material condition of each class. It is hoped that this account will provide the background and help to elucidate changes in the demographic features of the general, urban, rural, agricultural and industrial population of the State, discussed in later chapters.

I. Material condition during 1931-50 of the Population under Livelihood Class I (Cultivation of Land mainly owned: Owner cultivators)

166. Discussion on tenancy legislation, statistics of yield, yield per acre, cost of cultivation, average size of holdings, and whether the latter is economic or not is reserved for the chapter on the demographic features of the agricultural classes. Changes in the prices of agricultural produce, mainly rice and jute, the economic condition of this class, the extent of its indebtedness and in its standards of living will be the brief subject of this section.

167. There is a very significant statement in the Statistical Account of every West Bengal district by W. W. Hunter as early as 1872 which says that "an agriculturist owning and cultivating 5 acres of land will not be as well off as a person earning Rs. 8 or 16 s. a month". This was said at a time immediately following the golden age of 1855-65 when things were supposed to be as smooth as they ever had been. At that time Hunter was of the opinion that the average holding of an agriculturist would be about 5 acres or a little more. Hunter's statement, according to the present writer, is a very convenient starting-point for any useful discussion on the economic condition of the average husbandman at any particular point of time.

168. In 1929 the Bengal Provincial Banking Inquiry Committee tried to estimate the average income, expenditure and debt of a typical agriculturist family which was also a member of a cooperative society, but qualified its findings by the following observation: "The question naturally arises whether they form a fair sample of the whole

body of agriculturists. At one end of the scale there are people who are so well off that they do not desire to incur the risk of unlimited liability by enlisting themselves as members. At the other end there are persons who are so poor that they are refused membership."

169. The Land Revenue Commission in 1940 concluded that the average area in possession of a family was 4·4 acres, and it was found that 34 per cent. of the total area was being cultivated either under the barga system or by labourers. " On the evidence before us we are inclined to put down the average cultivated area per family including the families of agricultural labourers at about 4½ acres." The Commission took the average yield per acre to be 18·8 maunds of paddy. On a similar estimate the Bengal Provincial Banking Inquiry Committee concluded in 1929 that the income per agricultural family was Rs. 406. The Committee further estimated the total indebtedness in 1929 in the following way: 376,698 members of Co-operative Societies were examined and data about their assets and liabilities were obtained. The average debt per indebted family was found for such persons to be Rs. 147. Taking this figure as the average loan in rupees per family in 1929, the Committee estimated the value of debts of agriculturists in undivided Bengal at Rs. 1,000 millions.

170. If the basis of the estimate were generally accepted the volume of indebtedness was undoubtedly high in 1929 but in 1933, too, when the Board of Economic Inquiry on Rural Indebtedness took averages of income, expenditure and debt of typical agricultural families, the average debt was little less. In the meantime a gradual slump in agricultural prices had overtaken the country. The great Economic Crisis of 1929 was, as usual, about a year and a half too slow in visiting this predominantly agricultural economy and prices began to fall in 1931. The standard of living declined and the difficulties of cultivators increased. The following statement from the Preliminary Report of the Board of Economic Inquiry on Rural Indebtedness, published in 1935, based on a sample survey, sets out the position of a typical agricultural family in 1933.

STATEMENT O.16

Income and expenditure of typical agricultural families, 1933

District	Average Annual Income	Average Annual Expenditure	Average Annual Debt
	Rs.	Rs.	Rs.
Burdwan	156±6	197±7	219±13
Birbhum	172±9	169±8	162±16
Bankura	86±6	169±12	244±17
Midnapur	144±9	166±9	187±29
Murshidabad	132±8	142±8	106±9
Nadia (undivided)	141±6	163±6	199±15
Malda (undivided)	29±4	26±3	11±3

171. The above amply demonstrates how quickly and certainly the owner or tenant cultivator was getting more and more involved in debt with the slump in agricultural prices. The situation was aggravated by the great restriction

of rural credit. The Bengal Agricultural Debtors' Act was passed in 1935 with the object of scaling down the debts of cultivators and allowing them to repay the debts so fixed over a period of years; but excellent as were the intentions of the Act, and some of its results in the next decade, of which more presently, it resulted in an even greater contraction of credit. This was followed by the Bengal Moneylenders' Act in 1939 which led to the settlement of many debts by moneylenders at large concessions. As a result of these two Acts indebtedness fell after 1937 but it would not be too much to say that they nearly extinguished rural credit or compelled it to take new disguises which were more dangerous for the owner cultivator. In 1943, according to the Famine Inquiry Commission, about 29·0 per cent. of tenant cultivator families were in debt, with an average debt of Rs. 85·5 per family which increased in 1944 to 56·7 per cent. and stood at an average of Rs. 82·1. On the face of these figures one might imagine that agricultural families were better off than before, but the underlying facts are that during the Famine a large number of agriculturists sold off their lands to their creditors and, stepping down as bargadars, disposed of their lands as well as debts, and this served to lower the average debt per family. The majority of sales are likely to have been transacted with moneylenders or Mahajans to whom families were indebted or with whom the land was mortgaged. This conclusion is supported by the following statement of sales and mortgages during 1940-43 in West Bengal (24-Parganas, Nadia, Malda, Dinajpur and Jalpaiguri are included in terms of their pre-partition jurisdictions) under section 26 of the Bengal Tenancy Act. Corresponding figures for 1947-49 for West Bengal, as now constituted, are also given to illustrate the norm for the decade. It will appear that usufructuary mortgage, due to the operation of the Moneylenders' Act and Bengal Agricultural Debtors' Act and consequent contraction of credit, has almost gone out of fashion.

STATEMENT 0.17

Sales and mortgages under the Bengal Tenancy Act, 1940-49

Year	Number of sales under S. 26, B. T. Act	Number of usufructuary mortgages under S. 26, B. T. Act	Number of usufructuary mortgages expressed as percentage of number of sales
1940	173,872	3,916	2·25
1941	199,923	4,650	2·33
1942	212,701	2,929	1·38
1943	408,835	3,896	0·95
1947	199,351	828	0·42
1948	192,128	330	0·17
1949	245,679	393	0·16

172. The immediate problem of keeping body and soul together being over in 1943-44, and the winter harvest after the Famine bringing in a bumper crop, owner cultivators realised that they were on the brink of a precipice, and rather than sell off their lands thought it wiser to go in for loan. Their quest was helped by the stiffening of agricultural prices and in 1946 the Rural Indebtedness Inquiry assessed the percentage of owner cultivating families indebted as 53·7, a drop from 1944, and the volume of debt as Rs. 148·1, a steep rise from the average debt of 1944.

173. Before proceeding to an account of distribution of owner cultivators according to their size of land and extent of indebtedness, it may be interesting to review briefly the sources of loan and occupation of creditors and the purposes to which loans are generally devoted. The following is a statement of percentage distribution of the total amount of loan in 1946 by occupation of debtors and creditors. In 1946 farmers and owner cultivators, that is those who tilled the land which they owned, either rent free or on rent, constituted 10·93 and 47·44 per cent. respectively of the total volume of debtors.

STATEMENT O.18

Sources of loan of farmers and owner cultivators, 1946-47

Occupation of Debtor	Moneylenders	Proprietors	Cultivators	Traders	Professions	Cooperatives	Government	Others	TOTAL
Farmers	1·17	2·81	4·71	1·14	0·36	0·27	0·16	0·31	10·93
Owner Cultivators . . .	6·75	9·84	16·11	4·71	0·28	3·67	2·77	3·31	47·44

174. The Final Report on Rural Indebtedness (1946-47) summarized the sources of loan during 1941-46 as follows: Up to 1941 professional moneylenders, proprietors, rich cultivators, traders and Cooperatives held the field of credit. In 1943 the most important sources of credit were four: moneylenders, proprietors, the Government and cultivators. After 1943, the cultivator began to increase in importance as a creditor until in 1946 he supplied a third of the credit to owner-cultivators. He became a new class of rich peasantry who combined agriculture with moneylending and probably settled his lands, acquired in outright sales during the Famine, with bargadars. It is possible to deduce that this new class of rich peasantry recruited its strength from moneylenders and traders.

175. What does the debtor spend his debt on? Is it on the improvement of his land, or improvident expenditure, or realisable assets. The following statement of percentage distribution of the amount of loan by causes of incurrence and occupation of debtor families shows that he borrows to spend mainly on food, that is, to keep body and soul together, which means, unfortunately, that he borrows only to get more deeply involved in debt.

STATEMENT O.19

Objects of loan of farmers and owner cultivators, 1946-47

Occupation of Debtor	Food	House Repair	Social & Religious	Litigation	Arrear rent	Cultivation	Repayment of old loans	Others	TOTAL
Farmers . .	35·38	8·43	17·92	0·47	8·78	2·46	1·41	25·15	100·00
Owner Cultivator	44·01	0·60	10·27	0·40	8·41	12·07	0·21	24·03	100·00

176. It was a fashion with foreign students of Indian Economics to decry the peasant as improvident and prone to unnecessary festivity on social and religious occasions, "with a penchant for unprofitable litigation". The reasons for such despairing condemnations from persons who dreaded to go to the root of the problem were not far to seek. As early as 1929, however, the Provincial Banking Inquiry Committee refuted these uninformed charges by stating that litigation and religious ceremonies contributed but little to rural indebtedness, and that the real reason for the peasant's "improvidence" was poverty by reason of which "he is often compelled to discount his future

security to be relieved of his present necessity ".

177. The Report of 1946-47 goes on to say that out of 797 families of owner cultivators interviewed 36·26 per cent. took interest bearing cash loans, 18·32 interest free cash loans and 10·51 crop loans. The percentage are not mutually exclusive but interpenetrate each other. The size of loan was an average of Rs. 181 for interest bearing cash loans, Rs. 104-12 for interest free cash loans and 14 mds. 31 seers for crop loans. These are high figures but loans incurred by rich farmers were even higher.

178. How far agriculture is a profitable concern with owner-cultivators and how attractive agricultural prospects are to newcomers in the field can be judged from the above statements. There are other statements in the *Report on Rural Indebtedness* of 1946-47, that apply generally to the Agricultural Classes (Livelihood Classes I to IV of the Indian Census), which will be discussed when the other three classes have been individually commented upon. This will round off the prospect which agriculture holds out today *vis-a-vis* other non-agricultural livelihoods.

II. Material Condition during 1931-50 of the Population under Livelihood Class II (Cultivators of Land Manily Unowned : Sharecroppers)

179. The great majority of sharecroppers in West Bengal cultivate under the *barga* system, by which generally one-half of the produce goes to the lessor. This half may be regarded either as rent or the lessor's own share of the produce, while the remaining half which is kept by the cultivator may be regarded either as the wages of his labour or as his share of the produce which remains after the payment of rent. The Land Revenue Commision in 1940 was of the opinion that the provision in the Tenancy Act of 1928 which definitely declared the bargadars with few exceptions to be labourers, was a retrograde measure. The Commission calculated that in 1940 probably one-fifth of the land in Bengal was cultivated for zemindars, tenureholders, raiyats or under-raiyats by people most of whom themselves hold lands as raiyats or under-raiyats. Socially, the bargadars are regarded in the village as having a better status than labourers. Many bargadars are the original tenants who have lost their lands in the Civil Courts for failure to pay their rent or other liabilities. Some belong to aboriginal tribes like the Santals who originally brought land into cultivation, but were gradually bought up by their landlords or creditors, and were converted into serfs. Chapter VII A was inserted into the Bengal Tenancy Act too late to save many of them from the consequences of their own debts. A survey was undertaken in the Barind area of Malda district in 1948 to estimate the extent of dispossession by non-agriculturists of Santal owner-cultivators who were eventually reduced to barga cultivators and agricultural tenants, and the following—described by the Commissioner of the Division as an understatement because the survey was performed with the least publicity in order to avoid widespread agrarian unrest—represents the extent and rapidity with which expropriation from the land has taken place:

STATEMENT O.20

Survey of dispossession of aboriginals in Malda district, 1948

Period	Number of cases of transfer in contravention of Chapter VII A and total area involved		No. of cases of sale through Civil Courts and area involved	
	No.	Area (acres)	No.	Area (acres)
A. For the period between 1923 and publication of the Settlement Records in the 1930's.	14	86	361	4,378
B. For the period after the publication of the Record of Rights	11	88	361	4,487
TOTAL	25	174	722	8,865

180. The Land Revenue Commission felt that the expropriation of owner-cultivators and their reduction to sharecroppers was bound up with the commercialisation of land, *i.e.*, the appropriation of the most valuable right in land—the occupancy right—by non-agriculturists. The word "commercialisation", as used by the Commission, might suggest that cultivation was perhaps being rationalised leading to a better arrangement of production and better yield but this is far from being the case. While the Commission conceded that the *barga* system had its advantages inasmuch as when a share of the crop is paid the amount of rent varies with the outturn, and that the system is of great assistance to widows, minors, and other people who are temporarily incapacitated from agriculture, yet it was of the opinion that the *barga* system essentially overrides the principle that the tiller of the soil should have security and protection from rack-renting. The Commission thought that half the produce was an excessive rent, and further, that this system of cultivation was not economic and therefore not in the interest of the community. The bargadar is denied the vital incentive to improve his yield per acre because he gets the benefit of only half the value of any increase in yield which is the reward of his own labour or enterprise. If the crop is even a partial failure, he does not earn the cost of cultivation. More than one District Settlement Officer of Bengal have in the past attributed the decline of yield and agriculture to the *barga* system repeating the argument that the lack of occupancy right deprives the system of all incentive and zest so essential to a positive outlook on life. There will be occasion in a later chapter to describe the rapidity with which an increasingly large percentage of bargadars figure in the agricultural community since 1901, and this section will be confined to a description of the material condition of the sharecropper as revealed by the *Inquiry into Rural Indebtedness in 1946-47.*

181. Out of a total of 2,630 rural families surveyed in 1946-47, 190 were sharecroppers among whom 34 per cent. of families were debtors in interest bearing cash loans, the average loan being Rs. 77-10, 23 per cent. were debtors in interest free loans, the average of these loans per family being Rs. 62-5 and 26 per cent. were indebted for crop loans, the average of crop loans per family being 15 mds.

182. Sharecroppers enjoy little credit. Of the total number of debtors in 1946 they formed only 6·19 per cent. The sources from which they borrowed are set out in the following statement:

STATEMENT O.21

Sources of loans of sharecroppers, 1946-47

Occupation of Debtor	Money-lenders	Proprietors	Cultivators	Traders	Professions	Cooperatives	Government	Others	TOTAL
Sharecroppers . . .	0·47	1·18	2·87	0·47	0·09	0·17	0·68	0·26	6·19

183. It is remarkable that the biggest source of loan is, and logically so, the cultivator or, as has been already noted, a new class of rich peasantry to whom it is not unlikely that the sharecropper sold out his occupancy right before being reduced to his present stage.

184. The items on which the sharecropper largely spends his loan is set out in the following statement. It shows that he has a larger proportion of social and religious obligations than the cultivator. Is it an indication of his vanity trying to redeem his lost economic position?

185. Percentage distribution of the amount of loan by causes of incurrence and occupation of debtor families is set out below.

STATEMENT O.22

Objects of loan of sharecroppers, 1946-47

Occupation	Food	House repair	Social & religious	Litigation	Arrear rent	Cultivation	Repayment of old loans	Others	TOTAL
Sharecroppers . . .	55·98	1·96	17·78	..	1·04	5·34	..	17·90	100·00

186. The large percentage of the loan spent on food indicates what kind of a producer a sharecropper is, the incentive that he normally has to grow more food, and how chronically he hovers below the subsistence line to think of a really good standard of living.

III. Material Condition during 1931-50 of the Population under Livelihood Class III (Agricultural Landless Labourers)

187. Socially enjoying the lowest position among the agricultural classes, the landless wage earning labourer is inclined to return himself as an owner cultivator or at least a bargadar even if he has a few decimals of land to call his own, and this sentiment conceals to a certain extent his percentage strength among the agricultural classes.

188. Out of 698 agricultural labourer families surveyed in 1946-47 30·08 per cent. were in debt with interest-bearing cash loans, the average loan being Rs. 54-5; 20·63 per cent. were in debt with interest-free cash loans, the average loan being Rs. 35-11, and 13 per cent. were in debt with crop loans, the average loan being 6·6 maunds of paddy. Agricultural labourers constituted 11·59 per cent. of the total number of debtor-families covered by the survey and the following statement shows the percentage distribution of the total amount of loan in 1946 by occupation of debtors and creditors.

STATEMENT O.23

Sources of loan of agricultural labourers, 1946-47

Occupation of Debtor	Money-lenders	Proprietors	Cultivators	Traders	Professions	Cooperatives	Government	Others	TOTAL
Agricultural labourers	2·12	1·26	4·33	1·07	0·16	0·30	1·98	0·37	11·59

189. The chief sources of credit are still those who are perhaps partly responsible for the present state of the community.

190. A statement of the percentage distribution of the amount of loan by causes of incurrence given below demonstrates very clearly the economic plight of the landless agricultural labourer. Enjoying very little of the agricultural produce which it helps to raise, this class has to buy almost all the food it consumes and hence spends the largest amount of its loan on food.

STATEMENT O.24

Objects of loan of agricultural labourers, 1946-47

Occupation	Food	House repair	Social religious	Litigation	Arrear rent	Cultivation	Repayment of old loans	Others	TOTAL
Agricultural labourers	71·70	5·71	5·82	0·27	4·18	3·15	0·88	8·29	100·00

191. In 1931 the Census Superintendent quoted agricultural wage rates from successive wage censuses taken in 1908, 1911, 1916 and 1925 and the following statement is reproduced from the report of 1931 so far as these years are concerned. As for wages in 1939-40 they are taken from the *Report of the Land Revenue Commission 1940,* Vol. II, Page 117.

STATEMENT 0.25

Average rate of daily agricultural wages in annas, 1908, 1911, 1916 and 1925

District	1908	1911	1916	1925	1939-40	
					Harvesting season	In other seasons
Burdwan	5·25	5·25	7·25	11	5·56	3·4
Birbhum	4·5	3·4	5	7	3·56	2·56
Bankura	4·9	3·8	4·8	9	3·4	2·4
Midnapur	5·4	4·25	5·25	8	4·0	3·0
Hooghly	5·4	5·25	7·25	12	6·0	4·0
Howrah	5·5	5·4	6·75	12	6·0	4·0
24-Parganas	5·75	5·75	7	10	4·56	3·56
Nadia	4·9	4·9	4·75	9	3·19	2·56
Murshidabad	3·9	3·6	4·5	8	2·56	2·56
Malda	..	5	5	6	2·56	2·56
Dinajpur	..	10	7·5	11	3·0	2·4
Jalpaiguri	..	10	8·25	12	4·56	3·56
Darjeeling	..	5	5·75	10	..	..

192. The Famine Inquiry Commission in 1945 made the following survey of agricultural wages obtaining between 1938 and 1944. Between 1931 and 1938 agricultural wages steadily declined with the fall in the prices of agricultural produce so much so that in 1938-39 a daily wage of 3½ annas was considered fair enough for an agricultural labourer. This statement is quoted from the Final Report of the Famine Inquiry Commission and the next statement is an account of agricultural wages compiled from the Calcutta Gazette for the month of September in the years 1947-50.

STATEMENT 0.26

Index of wages and price of foodgrains, 1939-45

The average 1939-40 wages for Bengal as a whole ranged from 3¼ annas to 4¼ annas. The rise in agricultural wages generally followed the rise in foodgrains prices.

	Wages		Price of foodgrains (average of cereals and pulses)
Base 1939-40	100	Base 1939	93
1940-41	110	1940	100
1941-42	115	1941	109
1942-43	125	1942	160
1943-44—First half	130	1943	385
Second half	200—300	1944 (first seven months)	289
1944-45—First half	400—500		

The above statement represents the increases in wages in the province generally. In certain areas, however, where military or civil defence works were in progress or where there has been a serious depletion of agricultural labour owing to famine and epidemics, the increase in wages during the years 1942 to 1944 has actually been phenomenal. Though the price of rice fell towards the end of 1943, wages continued to rise possibly due to a steady rise in the prices of other essential commodities. On the question whether wages will adjust themselves to a system of regulated prices in *normal times*, the Government of Bengal anticipates that this adjustment will be at a relatively higher level than in prewar years. The factors governing wages are stated to be (*a*) the number eventually available for agricultural pursuits, (*b*) depletion of agricultural labour resulting from the famine of 1943, and the epidemics that followed, (*c*) migration from distressed areas to other provinces, (*d*) impetus given to agricultural labourers by the Grow More Food Campaign. [The Famine Inquiry Commission : Final Report, 1945, pp. 484-5.]

STATEMENT 0.27(a)

Agricultural labour wages, 1947-50

	September 1947		September 1948		September 1949		September 1950	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimu
	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.
1 Burdwan	2 0	1 8	2 8	1 12	2 0	1 8	2 0	1 8
2 Birbhum	1 8	1 8	2 0	1 8	2 0	1 8	1 14	1 6
3 Bankura	1 8	1 4	1 10	1 4	1 10	1 10	1 12	1 10
4 Midnapur	1 12	0 10	2 8	1 2	2 0	1 2	2 4	1 2
5 Hooghly	2 0	1 4	2 4	1 12	2 4	1 12	2 8	2 0
6 Howrah	2 0	1 8	2 2	2 0	2 8	2 8	2 4	2 4
7 24-Parganas	2 4	1 2	2 0	1 8	2 8	1 8	2 8	1 4
8 Nadia	1 8	1 8	2 4	2 2	2 8	2 2	1 14	1 8
9 Murshidabad	2 0	1 8	2 0	1 8	2 0	2 0	2 0	1 0
10 Malda	2 0	2 0	1 10	1 10	1 12	1 12	1 12	1 12
11 West Dinajpur	1 8	1 8	1 12	1 12	2 0	2 0	3 0	2 0
12 Jalpaiguri	2 0	2 0	3 0	3 0	3 0	2 4	2 8	2 8
13 Darjeeling	2 0	1 8	2 8	1 8	3 0	1 8	3 0	1 8

193. The *Final Report of Inquiry into the condition of agricultural labourers in 1946-47* is a valuable document which brings out in detail various aspects in the life of the agricultural labourer. There will be occasion to discuss some of its findings in a later chapter, while his material condition only will be discussed here.

194. There are two types of agricultural labourers. The first is the day labourer engaged only on a daily wage basis and paid in cash and sometimes partly in cash and partly in food, but always for the day. The second type is the 'kishan' labourer, who is almost a permanent type of agricultural labour, employed on a yearly, monthly or a daily payment basis, either residential or non-residential. This second type is usually employed by the resident rich peasantry, or jotedar or farmer as he is called, who cultivates his land partly by hired labour. But more frequently it is the well-to-do owner cultivator who employs 'kishan' labour.

195. The Report addresses itself to investigate for how many days in the year does the first type of agricultural labourer finds employment, for how many days he is unemployed, the reasons of his unemployment, and the seasonal variation if any in his employment. The following statement shows the employment and unemployment of agricultural labourers inclusive of non-agricultural pursuits.

STATEMENT 0.27(b)

Percentage of days employed among agricultural labourers, 1946-47

District	No. of labourers interviewed	Percentage of days in the year	
		Employed	Un-employed
Burdwan	16	46·1	53·9
Birbhum	13	81·4	18·6
Bankura	17	78·1	21·9
Midnapur	48	66·0	34·0
Hooghly	20	53·9	46·1
24-Parganas	11	61·7	38·3
Murshidabad	27	66·5	33·5
Malda	8	80·8	19·2
Jalpaiguri	19	66·9	33·1
WEST BENGAL	179	67·7	32·3

196. Employment in different types of work in 67·7 days out of a hundred is set out below:

STATEMENT 0.27(c)

Percentage of employed days by type of work for agricultural labour, 1946-47

Type of work	Percentage of days employed in the year
Ploughing	2·0
Sowing	4·3
Weeding	4·2
Harvesting	6·8
Threshing	2·5
Washing Jute	0·1
Others	9·4
Agricultural work	29·3
Skilled *majuri*	10·0
Unskilled *majuri*	28·4
Non-agricultural work	38·4
TOTAL WORK .	67·7

197. The following statement gives an account of his days of unemployment, with reasons of unemployment, during 32·3 days out of a total of 100.

STATEMENT 0.28

Percentage of unemployed days by type of work for agricultural labour, 1946-47

Reasons for unemployment	Percentage of days unemployed in the year
Want of work	8·2
Household work, ceremonials, etc. .	6·9
Sickness	3·1
Inclement weather	0·8
Cultivation of own land . . .	4·2
Miscellaneous	9·1
TOTAL .	32·3

198. The following statement generally indicates the seasonal variation in employment of agricultural labourers. The days of employment have been expressed as percentages of 15 days in each fortnight. The fortnightly survey corresponded with the Bengali Year and hence the first fortnight refers to the second fortnight of April.

STATEMENT 0.29

Seasonal variation in employment of agricultural labour, 1946-47

Months	Fortnight No.	Percentage of days employed on		
		Agricultural work	Non-agricultural work	Total
April 15—30 .	1	17·8	53·7	71·5
May . . .	2	19·6	50·8	70·4
	3	24·7	46·9	71·6
June . . .	4	29·8	43·3	73·1
	5	29·3	40·4	69·7
July . . .	6	32·4	35·4	67·8
	7	41·1	27·3	68·4
August . .	8	41·6	27·1	68·7
	9	43·3	26·4	69·7
September .	10	38·6	27·7	66·3
	11	31·6	38·4	70·0
October . .	12	22·2	41·6	63·8
	13	14·3	49·1	63·4
November . .	14	16·1	50·2	66·3
	15	31·3	37·0	68·3
December . .	16	42·5	26·1	68·6
	17	44·0	26·1	70·1
January . .	18	31·6	31·2	62·8
	19	36·4	29·9	66·3
February . .	20	28·9	33·2	62·1
	21	21·2	40·6	61·8
March . .	22	16·3	42·1	58·4
	23	15·8	60·7	76·5
April 1—15 .	24	6·0	60·6	66·6
Year 1946-47 .	1—24	29·3	38·4	67·7

199. The Inquiry made a survey of wage rates in different regions and for different types of work in 1946-47. The following statement differentiates the various rates in different kinds of agricultural and non-agricultural work.

STATEMENT O.30

Average daily agricultural wage rate, 1946-47

District	No. of labourers interviewed	Agricultural work (Average daily wage rate in rupees)							
		Ploughing	Sowing	Weeding	Harvesting	Threshing	Stripping and washing jute	Others	Combined
Burdwan	16	1·08	0·71	0·66	1·15	1·10	..	0·90	0·07
Birbhum	13	0·98	1·53	0·76	1·30	1·18	..	0·61	0·90
Bankura	17	..	0·87	..	0·72	0·93	1·00	0·60	0·65
Midnapur	48	1·07	0·98	0·85	0·89	0·93	0·85	0·79	0·80
Hooghly	20	2·52	1·31	1·32	1·24	..	1·25	1·26	1·36
24-Parganas	11	1·50	..	..	1·75	..	..	1·64	1·69
Murshidabad	27	1·11	0·74	0·96	1·14	0·89	1·68	0·71	0·91
Malda	8	1·52	1·54	1·60	1·93	1·99	..	1·50	1·73
Jalpaiguri	19	1·52	..	0·79	1·18	..	..	1·21	1·21
WEST BENGAL	179	1·22	1·06	0·99	1·17	1·01	1·45	0·82	1·01

200. The following statement gives the average daily wage rate in rupees in non-agricultural work throughout the year.

STATEMENT O.31

Average daily wage rate in rupees, 1946-47

District	Non-Agricultural work			
	No. of labourers interviewed	Skilled *majuri*	Unskilled *majuri*	Combined
Burdwan	16	1·02	0·87	0·88
Birbhum	13	1·13	0·60	0·72
Bankura	17	1·21	0·61	0·77
Midnapur	48	1·07	0·86	0·88
Hooghly	20	1·28	1·46	1·34
24-Parganas	11	1·15	1·40	1·40
Murshidabad	27	1·07	0·59	0·68
Malda	8	1·02	0·99	0·99
Jalpaiguri	19	1·10	1·02	1·05
WEST BENGAL	179	1·02	0·76	0·83

It is unnecessary to quote in detail the seasonal variation in wage rates for agricultural and non-agricultural labour but it will be interesting to quote the maxima and minima in wages. The maximum daily wage in agricultural work was reached in the second fortnight of November 1946 with a rate of Rs. 1·15 and the minimum was touched in the second fortnight of March 1947 with Re. 0·86. In non-agricultural work the maximum was reached in the first fortnight of April 1947 with Rs. 1·83 and the minimum in the second fortnight of August 1946 with Re. 0·66.

201. So much for the employment and wages of agricultural labour hired on a daily money wage. The Report gives an account of employment of the second type of agricultural labour—the 'kishan' labourer whose function in the household of his agricultural employer is similar to that of the domestic servant in an urban household; that is, besides those tasks in which he is rightfully employed he is an odd helper in the

domestic and farmyard chores. The Inquiry provides the following statement of the relative proportion of employment provided to 'kishan' labourers by employers of different classes.

STATEMENT O.32

Employment of 'kishan' labour by employers, 1946-47

Principal occupation of employer	Total No. of families in each class	Total No. employing 'kishan' labour	No. of 'kishans' employed	Percentage of 'kishans' employed
Proprietor	714	161	143	3·01
Farmer	530	370	368	7·76
Cultivator	10,700	8,865	3,891	82·02
Sharecropper	1,908	498	8	0·17
Craftsman	957	235	39	0·82
Trader	1,332	381	162	3·41
Liberal professions	336	106	52	1·10
Others	8,264	1,449	81	1·71
TOTAL	24,741	12,065	4,744	100·00

202. In the rural areas 'kishans', engaged on daily or monthly basis, are often required to live in the premises of the employer. The following statement analyses by the occupation of employers the percentage of 'kishan' labourers of the monthly non-resident, the paid resident, and the daily wage non-resident types:

STATEMENT O.33

Terms of employment of 'kishan' labour, 1946-47

Principal occupation of employer	Percentage of labourers engaged		
	Monthly non-resident	Pay basis resident	Daily wage basis
Proprietor	75·52	22·38	2·10
Farmer	67·11	28·81	4·08
Cultivator	65·15	27·99	6·86
Sharecropper	37·50	62·50	*Nil*
Craftsman	56·41	33·33	10.26
Trader	65·44	24·07	10·49
Liberal professions	69·23	30·77	*Nil*
Others	61·73	14·81	23·46
TOTAL	65·49	27·66	6·85

The Report concludes that the employment of 'kishan' labour in agricultural operations is mainly on a monthly wage basis (about 93 per cent.), of which only 28 per cent. are residential labour. Curiously enough a big percentage of residential labour is employed by sharecroppers.

203. The Inquiry investigated the sources of income of agricultural labourers and the following statement shows the average annual income by sources for families of different income levels.

STATEMENT O.34

Average annual income by sources for families of different income levels, 1946-47

Annual income level in rupees	Number interviewed		Average size of family	*Per capita* income in rupees				Percentage to total			
	Families	Persons		Wages	Home produced commodity	Miscellaneous	Total	Wages	Home produced commodity	Miscellaneous	Total
Below 600	869	3,266	3·76	73·73	14·68	19·74	108·15	68·2	13·6	18·2	100.0
600—1,200	349	1,967	5·64	90·71	26·47	22·49	139·67	64·9	19·0	16·1	100·0
1,200—1,800	38	319	8·39	85·77	48·40	27·59	161·76	53·0	29·9	17·1	100·0
1,800 and above	7	75	10·71	66·01	87·82	18·09	171·92	38·4	51·1	10·5	100·0
All income levels	1,263	5,627	4·46	80·20	21·62	21·14	122·96	65·2	17·6	17·2	100·0

The Report goes on to remark that for most of the families more than 60 per cent. of the income is derived from wages (cash and kind) but in the higher income slabs the contribution from home-produced commodities, *i.e.*, from land owned or cultivated by these families, proportionately increases, until it becomes more than 51 per cent. to families earning over Rs. 1,800 per annum, when they gradually merge into the cultivator class, agricultural labour making an almost equal proportion to direct cultivation of the land, owned or share cropped.

204. As against the above *per capita* annual income the Survey compiled statements of *per capita* annual expenditure, and came to the conclusion that there was invariably a small surplus or saving at the end of the year. Before this is substantiated by more general information, the following statement will illustrate the *per capita* annual expenditure on individual items. The number of families and persons interviewed remains the same as in the last statement.

STATEMENT O.35

Per capita annual expenditure on items by income levels, 1946-47

	Per capita annual expenditure in rupees on									
	Food									
Annual income in rupees of the family	Purchased	Home-grown	Total	Clothing	Fuel and Light	Intoxicants	Others	Total	Average income	Difference (10)—(9)
1	2	3	4	5	6	7	8	9	10	11
Below 600 . .	57·95	20·51	78·46	4·18	1·49	3·61	11·59	99·33	108·15	+8·82
600—1,200 . .	70·33	25·89	96·22	4·87	1·56	4·64	16·53	123·82	139·67	+15·85
1,200—1,800 . .	59·86	39·82	99·68	6·09	1·43	5·67	22·37	135·24	161·76	+26·52
1,800 and above .	30·18	63·87	94·05	6·21	1·72	4·37	37·27	143·62	171·92	+28·30
TOTAL .	62·02	24·06	86·08	4·56	1·51	4·10	14·27	110·52	122·96	+12·44

205. This pleasant feature of an annual saving was verified with reference to fortnightly income and expenditure and found to hold good. Another verification was made by way of family income and expenditure by districts and the same surplus was found to exist. The statement gives the results.

STATEMENT O.36

Income and expenditure of agricultural labourer families, 1946-47

District	No. of families interviewed	Average size of family	Per family income (in rupees)	Per family expenditure (in rupees)
Burdwan	**152**	**4·44**	**586·96**	**531·86**
Birbhum	**129**	**4·41**	**577·56**	**495·57**
Bankura	**110**	**4·88**	**541·16**	**496·51**
Midnapur	**312**	**4·29**	**473·08**	**401·39**
Hooghly	**70**	**4·22**	**595·97**	**537·74**
Howrah	**44**	**4·22**	**448·98**	**419·64**
24-Parganas	**112**	**4·50**	**581·64**	**542·77**
Nadia	**40**	**4·75**	**609·42**	**586·10**
Murshidabad	**125**	**4·71**	**534·60**	**502·85**
Malda	**109**	**4·74**	**642·30**	**590·60**
Dinajpur	**83**	**4·30**	**586·51**	**501·39**
Jalpaiguri	**27**	**3·07**	**485·89**	**463·85**
WEST BENGAL	**1,263**	**4·45**	**547·18**	**491·82**

This feature of a surplus is not peculiar to one or two districts but common to all that were surveyed and the proportion of surplus is fairly uniform to the income. Does it signify an effort on the part of the land-hungry labourer to lay by as much cash as he can in the hope of buying a plot to call his own, after Steinbeck's *Mice and Men?*

206. The agricultural labourer is thriftier than his industrial counterpart or at least he finds less to spend upon. He spends more on food and has a poorer standard than his industrial counterpart. The Inquiry makes the following comparison of percentage expenditures by items between agricultural labour and industrial labour families.

STATEMENT O.37

Percentage expenditures by items of agricultural and industrial labour, 1946-47

Items	Percentage expenditure of		
	Agricultural labour families		Industrial labour families
	Including home-grown commodities	Excluding home-grown* commodities	
Food	77·9	71·7	64·1
Clothing	4·1	5·3	7·7
Fuel and light	1·4	1·8	8·7
Intoxicants	3·7	4·7	2·6
Miscellaneous	12·9	16·5	16·9
TOTAL	100·0	100·0	100·0

IV. Material Condition during 1931-50 of the Population under Livelihood Class IV (Proprietors, agricultural rent-receivers, non-cultivating owners of land)

207. Proprietors as a class are least in debt among the Agricultural classes as the Inquiry on Rural Indebtedness in 1946-47 revealed. In that year the volume of debt of this class amounted only to 2·45 per cent. of the total volume of rural indebtedness, and the sources of loan were distributed as follows:

STATEMENT O.38

Sources of loan of proprietors, 1946-47

Occupation of Debtor	Money-lenders	Proprietors	Cultivators	Traders	Professions	Co-operatives	Government	Others	Total
Proprietors	0·82	1·35	0·16	0·11	..	..	0·01	..	2·45

208. The objects over which these debts were spent were as follows:

STATEMENT O.39

Objects of loan of proprietors, 1946-47

Occupation of Debtor	Food	House repair	Social and religious	Litigation	Arrear rent	Cultivation	Repayment of old loan	Others	Total
Proprietors	54·90	..	22·17	..	9·96	12·97	..	..	100·00

209. It is obvious that the Inquiry picked up a sample of small proprietors, or impoverished landlords, who had been reduced to the possession of a few acres of land which they settled with tenants, or widows, minors and absentees who did not look after their lands themselves and were compelled to hand them over to cultivators, content to derive whatever revenue their lands yielded. On the other hand this is also the livelihood class which claims a share of the larger income groups, that is, with above Rs. 1,800 per annum.

210. As regards indebtedness of this livelihood class, the Inquiry found that 28·57 per cent. families were burdened with interest-bearing cash loans, 14·28 families with interest-free cash loans, and 2·86 per cent. with crop (paddy) loans. The average loan per family of proprietors was Rs. 719·90 by way of interest-bearing cash loans, Rs. 136·60 in interest-free cash loans and 3 maunds of crop loans.

211. Since these four livelihood classes form the bulk of the rural population of West Bengal,—populations engaged in Production other than Agriculture, Commerce, Transport, and Other Sources being much fewer than Classes I to IV taken together—it may be profitable to take stock of the overall position of the indebtedness and material condition of the rural population as a whole before passing on to an account of agricultural prices during the period under review, or land transfers, or the record of the Cooperative Movement. What is set forth below should be read along with the account of the relative numerical strength of the four livelihood classes, the amount of land ordinarily enjoyed by each, and other details discussed in chapters that will come later on the Rural Population and the Agricultural classes.

212. The Final Report on the Inquiry into Rural Indebtedness 1946-47 estimated that 50·02 per cent. (with a sampling error of ± 0·29) of the rural families investigated in the First Stage in 1946 and 30·91 per cent. (with a sampling error of ± 0·79) of families investigated in the Second Stage in 1947 were indebted in West Bengal. The percentage varied between 65·05 + 1·01 in Midnapur and 24·42 ± 3·86 in Malda in the First Stage and between 46·68 ± 1·82 in Midnapur and 10·08 ± 2·66 in Jalpaiguri in the Second Stage. The Report concluded that in the State as a whole 50 per cent. of rural families were in debt in 1946 which dwindled to 31 per cent. in 1947. It applied the value of 't' statistic which was 22·7 which showed that the decline was significant in the statistical sense. This improvement may be ascribed to the lag between the mounting prices of agricultural commodities and finished products on the one hand and the less steeply rising labour wages on the other. The details showed that the position in individual districts improved to a greater or less extent between 1946 and 1947. An analysis of average debt by districts also showed improvement between 1946 and 1947, and is shown in the following statement.

STATEMENT O.40

Percentage of families in debt and average debt per family by districts, 1946-47

District	Percentage of families in debt ± sampling error			Average debt in rupees per indebted family with standard error		
	First stage 1946	Second stage 1947	't'	First stage 1946	Second stage 1947	't'
Burdwan	40·51±1·97	39·57±2·28	0·31	147·72±19·69	132·72±18·17	0·56
Birbhum	52·10±2·12	29·44±3·00	6·17	118·09±20·47	102·07±22·24	0·53
Bankura	45·42±1·17	36·06±3·24	2·72	116·53±20·26	77·27±12·85	1·64
Midnapur	65·05±1·01	46·68±1·82	8·83	119·44±12·55	143·45±28·38	0·77

STATEMENT O.40—concld.

Percentage of families in debt and average debt per family by districts, 1946-47

District	Perentage of families in debt ± sampling error			Average debt in rupees per indebted family with standard error		
	First stage 1946	Second stage 1947	't'	First stage 1946	Second stage 1947	't'
Hooghly	63·53±1·99	26·19±3·09	10·17	132·75±10·57	137·90±43·02	0·12
Howrah	50·86±2·01	31·46±3·11	5·24	142·78±30·25	145·98±54·74	0·05
24-Parganas	58·60±1·39	18·93±2·02	16·18	129·00±14·22	192·98±47·35	1·30
Nadia	56·98±2·89	36·47±4·52	3·83	116·93±18·07	196·67±44·37	1·66
Murshidabad	40·93±2·40	29·71±2·73	3·09	122·12±15·44	118·83±19·91	0·13
Malda	24·42±3·86	20·42±2·61	0·86	128·76±43·81	60·00±16·61	1·47
Dinajpur	41·77±3·48	31·96±4·22	1·79	111·62±24·24	119·90±45·45	0·16
Jalpaiguri	33·40±4·23	10·08±2·66	4·67	156·36±37·33	80·08±4·56	2·03
WEST BENGAL	50·02±0·29	30·91±0·79	22·75	127·41± 5·69	131·17±9·70	0·33

213. For a more comprehensive insight into the economic position of the rural population and the volume of indebtedness the Inquiry compiled a distribution of families at different levels of indebtedness as below:

STATEMENT O.41

Distribution of families according to the size of debt (No. of families interviewed: First stage 24,741; Second stage 2,630)

Size of debt in rupees	First stage 1946		Second stage 1947	
	No. of families in debt	Percentage to total	No. of families in debt	Percentage to total
1—50	6,191	50·06	360	44·33
51—100	2,645	21·39	168	20·69
101—150	980	7·92	99	12·19
151—200	857	6·93	37	4·56
201—250	377	3·05	38	4·68
251—300	415	3·36	16	1·97
301—350	97	0·78	26	3·20
351—400	218	1·76	22	2·71
401—450	50	0·40	8	0·99
451—500	204	1·65	9	1·11
501—1,000	230	1·86	20	2·46
1,000 and above	104	0·84	9	1·11
TOTAL	12,368	100·00	812	100·00

It will be seen, says the Report, that for about 71·5 per cent. of the indebted families the amount of debt in February 1946 was below Rs. 100, and for only 2·7 per cent. above Rs. 500. In March 1947, the corresponding figures were 65 per cent. and 3·6 per cent. [Please see para. 171 above].

214. The Inquiry estimated indebtedness by the size of land owned and found that the percentage of indebted families and burden of debt increased with the size of holding up to 10 acres after which it decreased. This permits of two conclusions: that the cost of cultivation mounts disproportionately with area cultivated, thus underlining the crisis in agricultural practices; secondly, that land is freely used as a commercial commodity commending credit. The extent and pattern are given in the following statement.

STATEMENT O.42

Indebtedness by size of land owned, 1946-47

Cultivable land owned in acres	No. of families interviewed	Percentage of families in cash debt	Average cash loan per family
Below 2 acres	1,701	47·56	138·35
2—5 acres	480	54·79	229·04
5—10 ,,	283	56·76	336·74
10 and above acres	166	47·62	542·65
TOTAL	2,630	49·66	205·25

215. The Report further analysed the debt by (i) percentage of total debt borne by income levels and (ii) percentage of total income shared and total debt borne by occupation groups and came to the conclusion that 93 per cent. of the total debt was incurred by families having an annual income less than Rs. 2,400 and forming 95 per cent. of the total population. Only 4 per cent. of the total debt was incurred by families constituting 3 per cent. of the population and having an annual income of more than Rs. 3,000. Further that cultivators, constituting 30·3 per cent. of the population, bore 47·4 per cent. of the total debt, agricultural labourers forming another 26·5 per cent. of the population bearing 11·6 per cent. of the loan, followed by farmers and traders. The statements are reproduced below:

STATEMENT O.43

Percentage of total debt borne by income levels

Annual income in rupees	Percentage of surveyed families (n = 2,630)	Percentage of interest-bearing debt borne
Below 600 . .	44·26	18·11
600—1,200 . .	35·02	36·27
1,200—1,800 . .	10·95	22·17
1,800—2,400 . .	5·09	16·47
2,400—3,000 . .	2·09	3·36
3,000—3,600 . .	0·96	1·03
3,600 and above .	1·63	2·59
TOTAL .	100·00	100·00

STATEMENT O.44

Percentage of total income shared and total debt borne by occupational groups

Principal occupation	Percentage of surveyed families (n = 2,630)	Percentage of interest-bearing debt borne
Proprietor . .	1·33	2·45
Farmer . .	3·99	10·93
Cultivator . .	30·30	47·44
Sharecropper .	7·22	6·19
Agricultural labourer	26·54	11·59
Craftsman . .	2·59	1·50
Liberal Professions .	7·15	6·49
Trade . .	9·13	8·61
Others . .	11·75	4·80
TOTAL .	100·00	100·00

216. This compares favourably with the findings in the Preliminary Report of the Board of Economic Inquiry on rural indebtedness published in the Calcutta Gazette in 1935 (Supplement to the Calcutta Gazette of 24 January 1935) where it was said that :

23 per cent. were not in debt at all,
43 per cent. were in debt less than two years' income (Class A),
16 per cent. were in debt less than four years' income (Class B),
and 17 per cent. were in debt more than four years' income (Class C).

217. Between 1935 and 1947 both the extent and volume of debts were definitely smaller than between 1929 and 1935, notable changes having appeared during the war years. But this cannot be categorically regarded as a sign of prosperity because during the Famine and the Second World War a large number of debtors wiped off their debts by selling off their personal effects and lands to their creditors who gave them the balance after meeting outstanding debts and interests in their books. There was a greater tendency towards outright sale of assets during 1940-50, the poorer sections of the population failing appreciably to reduce their debts otherwise.

218. Further, during the decade 1941-50 there has been a definite contraction of credit obviously due to the operation of the Moneylenders' Act and the Bengal Agricultural Debtors' Act which has largely destroyed the traditional financial agencies. The main financier in the village today is a section of the cultivator class, the moneylender or trader and large farmer running the lending business as a side line with an eye to acquiring more land while neither the Government nor Cooperative Societies seem by law permitted to come to the rescue of the agricultural labourer, or sharecropper as the latter commands little realisable assets to hold up to mortgage.

219. Rice and Jute are the two crops which earn money for the agricultural

classes and it is necessary to seek corroboration of the material condition of these classes during 1931-50 in the price trends of these two commodities over the same period.

220. Let us take the price of rice first. The Famine Inquiry Commission in their appendix on Agricultural Prices and Wages in the Final Report published median averages for Bengal as a whole, but as Bengal has since been partitioned, actual prices prevailing in the first fortnight of January, that is, for all practical purposes, the harvest price of common rice is given below for Burdwan, Birbhum, Midnapur, Howrah, Nadia, Malda and Jalpaiguri districts between 1920 and 1951.

STATEMENT 0.45

Quantities of common rice per rupee in standard seers of 80 tolas in the first fortnight of January

(Compiled from the Calcutta Gazette)

Year	Burdwan		Birbhum		Midnapur		Howrah		Nadia		Malda		Jalpaiguri	
	Sr.	Ch.	Sr.	Ch.	Sr.	Ch.	Sr.	Ch.	Sr.	Ch.	Sr.	Ch.	Sr.	Ch.
1920 . . .	5	4	6	12	6	0	6	0	5	10	6	14	4	8
1921 . . .	5	5	7	2	6	0	6	3	6	9	6	14	5	12
1922 . . .	6	12	6	0	8	1	6	8	8	0	7	8	7	5
1923 . . .	7	4	8	8	8	6	6	8	8	0	9	0	7	10
1924 . . .	8	0	8	0	8	11	7	0	7	4	8	12	7	0
1925 . . .	6	8	7	0	7	8	6	8	6	2	7	3	6	4
1926 . . .	5	4	6	0	6	8	6	8	5	13	6	7	5	4
1927 . . .	6	4	6	0	8	10	6	12	7	0	6	8	5	0
1928 . . .	5	12	5	6	6	0	5	8	5	4	5	12	5	4
1929 . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1930 . . .	8	8	8	0	8	15	7	8	7	14	8	12	6	6
1931 . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1932 . . .	12	0	16	0	15	0	7	8	12	12	16	0	9	8
1933 . . .	12	0	15	0	16	8	11	8	13	0	16	0	16	0
1934 . . .	13	2	16	0	16	0	12	8	13	8	16	14	14	0
1935 . . .	10	0	11	0	12	8	11	0	10	0	12	8	14	0
1936 . . .	9	8	10	8	11	11	10	0	9	12	12	12	14	8
1937 . . .	9	8	12	8	13	0	10	0	11	8	13	6	13	0
1938 . . .	12	5	14	4	14	9	10	0	13	5	15	4	10	15
1939 . . .	11	14	12	9	12	0	9	7	11	11	13	8	12	5
1940 . . .	10	8	10	8	10	8	10	0	9	0	11	5	11	5
1941 . . .	8	6	8	0	8	8	9	0	7	0	8	0	8	0
1942 . . .	8	12	7	11	8	4	7	12	8	0	7	12	8	0
1943 . . .	3	7	4	0	3	7	6	10	3	8	3	12	4	12
1944 . . .	2	10	3	0	3	0	3	9	2	10	3	2	3	0
1945 . . .	3	3	3	6	3	9	2	6	3	6	3	13	4	0
1946 . . .	3	4	3	3	3	0	2	10	3	3	4	7	4	0
1947 . . .	3	3	3	3	2	15	2	11	3	0	3	4	2	15
1948 . . .	2	11	2	12	2	12	2	7	2	5	2	5	2	1
1949 . . .	2	5	2	11	2	7	2	7	2	3	1	12	1	12
1950 . . .	2	7	2	11	2	11	2	7	2	6	1	11	2	1
1951 . . .	2	6	2	8	2	9	1	8	1	10	1	8	1	5

221. This table provides a fair guide to the material condition of the rural population in the State but the picture is not complete without an account of the price of jute per maund during the same period. Jute is the biggest and most substantial cash crop and its price is a fair index to the financial condition of the agricultural classes.

222. In the normal year, the total yield of the jute crop in the Indian sub-continent may be taken to be about 8·5 million bales grown on or about 3 million acres of land. The yield rose up to 10·9 million bales in 1929-30 and fell to about 6·6 million bales in 1938-39. Most of the jute grown in the area covered by the Indian Union was of an

inferior quality and was destined for export, while the Indian mills mostly used the crop grown in the area now in East Pakistan. The Indian mills require about 6 million bales for consumption in a year. Exports of raw jute normally vary between 2 to 2·5 million bales. As a result of the partition, the mills had to have recourse to manoeuvres with the help of the Government.

223. The price of jute in the 1930's was Rs. 5-15-0 per maund. During World War II when on account of the demand of jute manufactures prices tended to soar high, it was controlled at Rs. 17 per maund of raw jute (middles). In April 1951, after the decontrol of jute on 10 March 1951, subsequent to the Indo-Pakistan Pact, the price of jute rose beyond Rs. 100 per maund. Raw material forms about 70 per cent. of the cost of jute goods and the high price of raw jute consequently had repercussions on the position of manufactured jute goods in the export market. Figures for 1948-49, 1949-50, and 1950-51 published in the 'Accounts relating to the Foreign Sea and Air-borne Trade and Navigation of India' (January 1951) show a gradual deterioration of the volume and value of exports from year to year. It further appears that the export of raw jute is rapidly dwindling, that for 1950-51 being quite small. The reason is obvious. As the Indian mills have to rely very considerably on the indigenous produce, there is very little left for export to foreign countries, Pakistan having taken steps to supply the requirements of the foreign countries in increasing quantities from year to year.

224. About a third of all-India's foreign exchange earnings in 1948 came from jute and 66 per cent. of hard currency earnings had their origin in this source. The jute industry is the foremost structure of India on the manufacturing side. The Government of India therefore cannot but encourage a greater measure of self-sufficiency in raw jute production. The acreage of jute in India, according to authoritative sources, was 834,000 in 1949, 1,163,000 in 1950, and 1,449,000 in 1951. The yield per acre is inelastic and varies between 2·33 and 3·15 maunds per acre sown. With an yield of approximately 3 to 3·5 million bales of raw jute on Indian soil the mills will still require exported jute from Pakistan to cover nearly 50 per cent. of their requirements. Although the Government and the mills will try to keep the price of jute down, yet it looks as if jute will continue to fetch a firm price for some time to come, unless jute manufacturers are rapidly and effectively substituted.

225. The following statements substantiate the above observations with statistics. The first statement gives the price of jute of the "middle" quality and First marks for mills (price per bale) between 1930 and 1950. The price per maund of "bottoms" is usually Rs. 2 to Rs. 3 less than that for "middles".

STATEMENT O.46

Price of jute per maund and pucca bales, 1930-50

Year	Indian Jat Middle (Rupees per maund)				Pucca Bales (400 lbs. each) First marks for mills (Rupees per bale)			
	Highest		Lowest		Highest		Lowest	
	Rs.	A.	Rs.	A.	Rs.	A.	Rs.	A.
1930-31 . .	6	0	3	14	38	12	26	7
1931-32 . .	8	0	4	8	41	14	25	0
1932-33 . .	6	8	4	12	32	11	24	4
1933-34 . .	5	10	4	2	29	7	24	0
1934-35 . .	7	0	4	4	37	4	24	0
1935-36 . .	6	8	4	12	37	12	29	12
1936-37 . .	7	4	5	4	41	14	29	0
1937-38 . .	6	12	5	6	38	0	29	4
1938-39 . .	10	4	5	12	56	5	33	14
1939-40 . .	18	8	7	0	95	4	38	6
1940-41 . .	8	8	8	4	49	0	32	14
1941-42 . .	14	6	9	6	69	8	44	13
1942-43 . .	19	2	8	13	95	0	45	3
1943-44 . .	17	0	14	11	89	0	75	13
1944-45 . .	16	4	15	0	79	0	79	0
1945-46 . .	33	0	15	0	180	0	79	0
1946-47 . .	29	0	25	0	175	0	151	0
1947-48 . .	42	8	29	0	209	0	151	0
1948-49 . .	44	8	40	0	220	0	192	0
1949-50 . .	38	8	31	0	210	0	165	0
1950-51 . .	38	8	31	0	210	0	165	0

226. The second statement shows annual imports of raw jute into Calcutta and mill stations between 1934-35 and 1948-49.

STATEMENT O.47

Imports of raw jute into Calcutta and mill stations, 1934-48

Annual Average or Season	Maunds (000's)	Bales (000's)
1934-35—1938-39	45,661	9,393
1938-39	42,926	8,831
1939-40	48,351	9,946
1940-41	45,676	9,396
1941-42	27,916	5,743
1942-43	32,648	6,716
1943-44	26,795	5,512
1944-45	31,253	6,429
1945-46	38,288	7,876
1946-47	28,722	5,908
1947-48	31,640	6,509
1948-49	29,663	6,102

Source :—Monthly Summary of Jute and Gunny Statistics—October, 1951.

227. The third statement shows the exports of raw jute from all India between 1934-35 and 1949-50, the fourth details the 'export of gunnies' during the same period, and the fifth the 'stock and production of gunnies' with the Indian Jute Mills Association and All India.

STATEMENT O.48

Exports of raw jute (all India), 1934-49

Annual Average or Season	Tons (000's)	Bales (000's)
1934-35—1938-39	751	4,204
1938-39	693	3,883
1939-40	529	2,963
1940-41	241	1,348
1941-42	276	1,546
1942-43	235	1,316
1943-44	170	953
1944-45	188	1,051
1945-46	391	2,190
1946-47	268	1,502
1947-48	278	1,556
1948-49	160	896
1949-50	108	605

Source :—Monthly Summary of Jute and Gunny Statistics—October, 1951.

STATEMENT O.49

Exports of gunnies (all India), 1934-49

Annual Average or Season	Tons (000's)
1934-35—1938-39	914
1938-39	954
1939-40	1,147
1940-41	821
1941-42	825
1942-43	689
1943-44	635
1944-45	677
1945-46	711
1946-47	749
1947-48	896
1948-49	872
1949-50	754

Source :—Monthly Summary of Jute and Gunny Statistics—October, 1951.

STATEMENT O.50

Stock and production of gunnies (in 1,000 tons), 1934-50

Annual Average or Season	Stocks (end of the period) I.J.M.A.	Production	
		I.J.M.A.	All India
1934-35—1938-39	..	1,062	1,158
1938-39	187	1,103	1,172
1939-40	146	1,264	1,335
1940-41	145	984	1,062
1941-42	251	1,225	1,300
1942-43	275	1,205	1,278
1943-44	196	954	1,023
1944-45	176	1,000	1,059
1945-46	188	1,085	1,140
1946-47	176	962	1,009
1947-48	120	1,035	1,076
1948-49	107	1,040	1,081
1949-50	71	825	858
1950-51	90	858	892

Source :—Monthly Summary of Jute and Gunny Statistics—October, 1951.

228. The above brief review of the material condition of the Agricultural classes gives a broad outline of how they have fared during the last two decades, through a series of unprecedented changes, even calamities, and their equipment, or rather lack of it, to match livelihood with numerical growth. The margin between livelihood and the population is always slender, if not precarious, and substantiates the Famine Inquiry Commission's observations on the low economic level of the State, the increasing pressure on land not relieved by growth of industry, how a considerable section of the population lives on the margin of subsistence and is incapable of standing any severe

economic stress, the very bad health conditions and low standards of nutrition, the absence of a "margin of safety" as regards either health or wealth.*

229. It is now necessary to complete the picture with an account of the Non-Agricultural Classes comprising four livelihoods: Production other than Agriculture, Commerce, Transport and Other Services and Miscellaneous Sources.

230. The first, that is, Production other than Agriculture, relates to all basic, primary and secondary industries and thus represents the population earning its livelihood from pastoral pursuits at one end and highly industrialised workshops, mills and factories at the other. This is Livelihood Class V and it will be interesting to begin with an account of the material condition of this Class during 1931-50.

V. Material Condition during 1931-50 of Population in Livelihood Class V (Production other than Agriculture)

231. Pastoral livelihoods such as stock raising, poultry farming, plantations, forestry and woodcutting, hunting and fishing are often pursued as livelihoods subsidiary to agriculture and daily or monthly wages in these spheres are analogous to those paid to agricultural labour. It is unnecessary therefore to go into the details of increases that have occurred between 1931 and 1950 for these occupations, and we may pass on to organised labour in plantations, mines, and industries.

232. The whole of the two decades has been marked by a series of labour unrests, strikes, and manifestations of labourers agitating against employers for all-round improvement in their employment conditions. The 1930's opened with the Great Economic Crisis which affected all industries in India from 1931, and there was a series of slumps in tea, coal, jute and iron and steel industries. Coal revived a little from 1935 onwards and along with it other industries looked as if for them the worst was over. But desultory strikes continued throughout 1939-40 with the formation of powerful trade unions, whose number, although small compared to that in the latter decade, continued to exert influence in industry. Jute continued to fetch small prices and it was necessary for the Government to exercise control over the sowing of jute in order to ensure a minimum economic price even which was not always available. Tea alternated between depressions and fair markets and other industries managed to keep ticking over, although there was always a steady pressure on the tariff walls for imports of iron and steel, textiles and other manufactured goods. The Second World War caught India in no favourable mood, the Congress and the Muslim League, the two largest political parties in the country, choosing the role of sullen onlookers, the former taking the more positive course of non-co-operation with the result of seeing its leaders put in jail. But the entry of Japan and the opening up of Eastern India as a theatre of War galvanised the industrial world and within a very short while succeeded in injecting extraordinary vigour into existing industries, and in setting up a vast network of small ones engaged in turning out war supplies. Tea, coal and jute revived and it was found necessary to lift restrictions on the sowing of jute. Every kind of money crop fetched high prices so much so that the cultivation of rice and other cereals was neglected with disastrous consequences in the famine of 1943. The shooting up of the price of jute has been discussed, but no less phenomenal was the rise in tea, which now found an almost ever expanding market up to 1947.

233. Coal is a fair index of the movement of industry and the following statements illustrate the output of

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* Sri Jawaharlal Nehru has made an admirable one-page summary of the Commission's findings in his *The Discovery of India*, page 606.

mines and workers employed in 1931, 1941, 1945 and 1949, and the average wages in those years. The first relates to output and workers employed.

STATEMENT O.51

Average number of persons employed daily in and about the mines, 1931-49

Year	Total output in tons	Underground mines : Total male and female workers	Open workings : Total male and female workers	Surface workers	Grand Total
1931	5,810,184	31,187	1,042	12,413	44,642
1941	7,930,803	42,242	692	20,996	63,930
1945	7,290,650	43,097	4,093	27,755	74,945
1949	8,803,813	49,114	5,657	34,805	89,576

Source :—Annual Reports of the Chief Inspector of Mines, India.

234. The statement below compares the average daily earnings in rupees, annas, and pies during the month of December in the coal mines in the Raniganj coalfield in 1931, 1941, 1945 and 1949.

STATEMENT O.52

Average daily earnings in coal mines, 1931-49

Year	Underground				
	Overmen and Sardars, Foremen and Mates I	Miners II	Loaders III	Skilled labour IV	Unskilled labour V
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1931	1 1 3	0 11 0	0 9 6	0 11 6	0 8 3
1941	1 2 0	0 9 3	0 8 0	0 10 6	0 7 3
1945	1 15 3	1 3 9	1 1 3	1 3 0	0 14 6
1949	3 4 3	2 5 6	2 4 6	2 2 6	1 13 3

Year	Open workings				
	Overmen and, Sardars, Foremen and Mates I	Miners II	Loaders III	Skilled labour IV	Unskilled labour V
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1931	0 15 3	0 7 9	0 5 9	0 8 0	0 8 0
1941	0 12 6	0 8 6	0 7 9	0 9 6	0 6 6
1945	1 11 3	1 6 0	0 15 6	1 6 6	1 1 0
1949	2 12 3	2 3 6	1 7 0	1 15 3	1 9 6

Year	Surface			
	Clerical and supervising staff	Skilled labour	Unskilled labour	Females
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P
1931	1 1 6	0 10 9	0 7 9	0 5 3
1941	1 0 9	0 9 6	0 6 6	0 4 3
1945	2 0 0	1 3 9	0 14 3	0 10 6
1949	3 2 3	2 1 6	1 11 3	1 5 0

Source :—Annual Reports of the Chief Inspector of Mines, India.

235. Before entering into the details of labour wages obtaining in specific industries it will be profitable to discuss the minimum and maximum basic wages and total earnings of four of the most usual types of industrial labourer between 1938 and 1950. Three reference dates, 1938, 1944 and 1950, are taken in the following statements:

STATEMENT O.53

Daily and monthly wages of industrial blacksmiths, 1938-50

Firm	Daily Wages						Monthly Wages			
	1938		1944		1950				1950	
	Minimum	Maximum	Minimum	Maximum	Minimum basic wage	Maximum basic wage	1938 Average	1944 Average	Average basic wages	Average total earnings
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Bhartia Electric Steel Co., Ltd.	1 2 0	2 12 0	1 8 0	2 12 0	1 5 6	2 12 2	..	..	..	..
Hooghly Docking & Engineering Co., Ltd.	..	..	..	..	1 7 0	4 5 0	21 0 0	35 0 0	..	..
Indian Iron & Steel Co. (Hirapur)	..	..	..	..	..	..	..	..	53 4 0	104 0 6
Steel Corporation of Bengal (Burnpur)	..	..	..	..	1 15 0	2 5 0	..	..	..	..
Braithwaite, Burn & Jessop Construction Co., Kidderpore	..	..	..	..	1 11 7	2 4 1	..	..	..	..
	(Blacksmith mistry)				2 6 3	3 11 6	..	..	..	..

Source :—Office of the Labour Commissioner, West Bengal.

236. The total earnings either on the daily or monthly system are about double of the basic daily or monthly wages for blacksmiths, fitters, firemen and unskilled labour.

STATEMENT O.54

Daily and monthly wages of fitters, 1938-50

Firm	Daily Wages						Monthly Wages			
	1938		1944		1950				1950	
	Minimum	Maximum	Minimum	Maximum	Minimum basic wage	Maximum basic wage	1938 Average	1944 Average	Average basic wages	Average total earnings
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Bhartia Electric Steel Co., Ltd.	1 0 0	2 4 0	1 8 0	3 0 0	1 2 6	4 12 0	..	..	..	..
Hooghly Docking & Engineering Co., Ltd.	..	..	..	..	1 7 0	3 12 0	31 0 0	47 0 0	..	..
Indian Iron & Steel Co. (Hirapur)	..	..	..	..	..	..	..	..	48 9 0	96 11 0
Steel Corporation of Bengal (Burnpur)	..	..	..	..	2 7 0 2 3 0 1 12 0	2 14 0 2 9 0 2 1 0		..	..	..
Braithwaite, Burn & Jessop Construction Co., Kidderpore	..	..	..	..	1 9 6 2 14 9 1 3 10	2 10 6 3 9 4 1 7 4		..	..	..

STATEMENT 0.54—concld.

Daily and monthly wages of firemen, 1938-50

Firm	Daily Wages						Monthly Wages			
	1938		1944		1950				1950	
	Minimum	Maximum	Minimum	Maximum	Minimum basic wage	Maximum basic wage	1938 Average	1944 Average	Average basic wages	Average total earnings
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Bhartia Electric Steel Co., Ltd.	..	..	..	..	1 6 0	2 0 0	..	..	..	..
Hooghly Docking & Engineering Co., Ltd.	..	..	..	..	1 12 0	1 12 0	25 0 0	38 0 0	..	..
Indian Iron & Steel Co. (Hirapur)	..	..	..	..	..	..	..	..	35 4 0	71 15 3
Steel Corporation of Bengal (Burnpur)	..	..	..	..	1 9 0	1 14 0	..	..	..	..

Source :—Office of the Labour Commissioner, West Bengal.

STATEMENT 0.55

Daily and monthly wages of unskilled labour, 1938-50

Firm	Daily Wages						Monthly Wages			
	1938		1944		1950				1950	
	Minimum	Maximum	Minimum	Maximum	Minimum basic wage	Maximum basic wage	1938 Average	1944 Average	Average basic wages	Average total earnings
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Bhartia Electric Steel Co., Ltd.	0 12 0	0 14 0	0 14 0	1 0 0	1 2 6	..	..	..	..	..
Hooghly Docking & Engineering Co. Ltd.	..	..	..	..	1 6 0	..	14 0 0	26 8 0	..	..
Indian Iron & Steel Co. (Hirapur)	..	..	..	..	..	..	..	..	23 7 7	55 11 3
Steel Corporation of Bengal (Burnpur)	..	..	..	..	1 0 0	1 4 0	..	..	..	..
Braithwaite, Burn & Jessop Construction Co., Kidderpore	..	..	..	..	1 3 10	1 7 4	..	..	..	..

Source :—Office of the Labour Commissioner, West Bengal.

237. As already noted, the Report containing the recommendations of the Central Pay Commission submitted to the Central Government in May 1947 set the standard of wages and salaries in every avenue of labour throughout India, and all labour disputes henceforth aimed at securing at least those rates that are embodied in the Report. The Commission's recommendations thus became the minimum ambition of all workmen employed in private firms. Another achievement of the decade was the Minimum Wages Act, 1948 (Act XI of 1948), to the passing of which the trade union movement during 1945-47 made substantial contribution.

238. A series of awards was made by Labour Tribunals during 1947 and it will suffice here to quote the minimum awards made by some of them.

239. In a dispute concerning the Bhartia Electric Steel Co., Ltd., the Tribunal fixed a minimum basic pay of

Rs. 30 per month with a dearness allowance of Rs. 35. In another award concerning the Howrah Municipality the Tribunal awarded a monthly basic wage of Rs. 30 to unskilled labour, of Rs. 35 to semi-skilled labour, and Rs. 55 to skilled labour with a minimum dearness allowance of Rs. 22. The scales rose rapidly with degree of specialisation and skill. In another award concerning the semi-industrial municipality of Bansberia, the Tribunal awarded a minimum total earning of Rs. 28-8-0 per month to women sweepers graded up to Rs. 40 for trench coolies, and a minimum monthly pay of Rs. 56 and 44 to the 1st and 4th teachers respectively of the Municipality's primary schools. The Tribunal on the Gourepur Electric Supply Co. Ltd., fixed a minimum total monthly earning of Rs. 58 for Durwans, of Rs. 54 for unskilled workers, Rs. 73 for semi-skilled workers and Rs. 81 for skilled workers. These awards were for working class employees while wages for white collar workers in every case were a minimum of between Rs. 90 and Rs. 110.

240. In their award on disputes involving 64 specified engineering firms and their workmen the Tribunal in 1950 awarded a minimum dearness allowance of Rs. 31 to the minimum basic pay ranging up to Rs. 50 and stipulated (*a*) annual leave with wages for 10 days or more with six or five days' other leave with wages for employees governed by the Factories Act of 1948 and (*b*) Privilege leave on full pay for 21 days, such leave being allowed to accumulate up to a limit of 63 days, for the clerical supervisory staff and seven days' casual leave with full pay in a year.

241. In their award on disputes involving 89 specified jute mills and their workmen the Tribunal in 1951 awarded the following standardised basic wage rates, the rate increasing at the rate of 3 pies per hour for every year of experience and employment added in Grade C, and at the rate of 4 pies in Grades B and A.

Grade	Standardised basic wage per hour
C. (Workmen in the Engineering Department.)	36 pies
B. (Tinsmith, wood turner, silver can repairer, machineman, blacksmith, electrical mistry, Engine or Turbine mistry, Chinese carpenter).	55 pies
A. (At lease 20 per cent. of the total number of men in B & C grades must be in Grade A).	75 pies

242. Brief mention must be made of the Trade Union Movement during 1941-50 to discuss how industrial labour organised to make its demands.

243. Between 1941 and 1945 Trade Unionism languished because of security legislation and ordinances, and because most of the leaders were in jail. Its growth was retarded and leadership was indifferent and casual.

244. The pause was broken with two great strikes, the Tramway Workers' and the Post and Telegraph Workers', which ended in partial success for the workers and set the ball rolling. The number of registered unions began rapidly to increase and from 188 in 1939-40 it rose to 382 in 1944-45, and on to 601 in 1946-47. The following statement shows the number of unions and their membership between 1935-36 and 1949-50.

STATEMENT O.56

Number of trade unions and their membership, 1936-49

Year	No. of registered unions	No. of unions whose returns were included	Total membership of Unions whose returns were included
1935-36 .	69	59	80,816
1936-37 .	76	72	86,355
1937-38 .	171	146	144,728
1938-39 .	191	130	85,938
1939-40 .	188	134	122,368
1940-41 .	211	148	121,568
1941-42 .	288	133	175,595
1942-43 .	225	146	221,636
1943-44 .	298	189	289,658
1944-45 .	382	134	286,255
1945-46 .	417	99	259,768
1946-47 .	601	259	488,697
1947-48 .	985	702	..
1948-49 .	1,092	575	638,419
1949-50 .	1.157	545	489,158

Source :—Annual Reports on Trade Unions by the Labour Commissioner, West Bengal.

245. The most significant phase in the history of Trade Unionism since August 1947 has been the appearance of a number of Federations of Trade Unions. Quite a number belonged to no party but the more prominent party affiliations are the Congress, the Socialist Party, the Indian Federation of Labour, the Bengal Provincial Trade Union Congress, the Indian National Trade Union Congress, the Communist Party of India and others. The trade unions run very few welfare activities, their functions being practically limited to collective bargaining, better wages, better working conditions and security. In 1948-49 the trade union movement extended to a new field of labour in northern Bengal, the tea gardens, and formed as many as 72 unions in one year, and it looks like a coincidence that in September 1951 the Governor, by virtue of his powers under the Minimum Wages Act, 1948, fixed the following minimum daily rates of earnings consisting of basic wages and dearness allowance to manual workers and clerical staff employed in Tea Plantations in Darjeeling, Terai and Jalpaiguri Duars.

STATEMENT O.57

Wages of manual workers in tea plantations (in rupees and annas), September 1951

	Darjeeling Hills		Terai		Jalpaiguri Duars	
	Garden	Factory	Garden	Factory	Garden	Factory
	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.
Male adult	0 15	1 0	1 3	1 3	1 3	1 3
Female adult and adolescent .	0 14	0 15	1 1	1 1	1 1	1 1
Employable child . . .	0 8	0 9	0 10	0 10	0 10	0 10

STATEMENT O.58

Monthly salaries of clerical employees in tea plantations (in rupees), September 1951

	Darjeeling	Terai and Jalpaiguri Duars
	Rs.	Rs.
Non-Matriculate .	65	70
Matriculate . .	70	75

Source :—The Calcutta Gazette of 20 September 1951, pp. 2466-67.

246. The following is a classification of trade unions as on 31st March 1949:

STATEMENT O.59

Classification of trade unions, 1949

Category	No. of Unions
1 Railways and Transport other than Tramway	78
2 Textiles	173
3 Tramways	3
4 Printing Press	14
5 Municipalities	35
6 Seamen	14
7 Dock and Port Trust	9
8 Engineering	153
9 Miscellaneous	605
10 Agricultural	2
Total .	1,086
Federations .	6
TOTAL .	1,092

Source :—Annual Reports on Trade Unions by the Labour Commissioner, West Bengal.

247. The Central Railway group, with 18 unions and 167,823 members had the largest membership, followed by the Provincial Dock and Port Trust group with 6 unions and 27,758 members. The Provincial Tramways group came a powerful third with 3 unions and 11,705 members.

248. The total income of 545 unions in 1949-50 was Rs. 3,119,697-13-4 and the following statement shows the aggregate income of these unions from various sources and the percentage of each source to total income.

STATEMENT O.60

Sources of income of trade unions, 1949-50

Items of income	Amount of income			Percentage of each item to total income
	Rs.	As.	P.	
Contribution from members	2,487,084	7	0	79·72
Donations . .	125,783	7	9	4·03
Sale of Periodicals, books, etc.	6,007	0	3	0·19
Interest on investment	53,657	9	1	1·72
Income from miscellaneous sources	447,435	5	3	14·34
TOTAL .	3,119,967	13	4	100·00

Source :—Annual Report on Trade Unions, 1949-50 by the Labour Commissioner, West Bengal.

249. An account of the way in which this income is disposed of will throw some light on the working of the Trade Unions and how priorities are fixed in the estimation of their members. The following statement summarises the items of expenditure of the 545 unions, the expenditure on each head, and the percentage each expenditure bears to the total expenditure.

STATEMENT O.61

Items of expenditure of trade unions, 1949-50

Item of Expenditure	Amount of Expenditure Rs.	A.	P.	Percentage of each item to total expenditure
1 Salaries, allowances and expenditure of trade union office-bearers	192,664	2	6	7·08
2 Expenses of establishment	1,180,199	1	5	43·68
3 Auditing fee .	10,828	0	0	0·39
4 Legal expenses .	52,595	13	3	1·93
5 Expenses in connexion with trade dispute	70,608	15	0	2·60
6 Compensation paid to members	11,999	14	0	0·44
7 Funeral, old age, unemployment, benefit, etc.	52,749	12	3	1·94
8 Educational, social and religious benefit	20,430	13	0	0·75
9 Cost of publishing periodicals	5,543	11	3	0·20
10 Other expenses	1,114,104	12	7	40·99
TOTAL .	2,717,724	15	3	100·00

Source :—Annual Reports on Trade Unions,1949-50 by the Labour Commissioner, West Bengal.

The item of 'other expenses' is insufficiently described. A sample of the activities of the unions for one year is given by the Labour Commissioner in his Annual Report for 1949-50 in the following words:

> The activities of the trade unions mainly centred on demands for higher wages, dearness allowance, bonus, etc., and taking up the cause of dismissed, discharged or retrenched workers. The matter of recognition of unions is also an important item of their demands although the present Act does not provide compulsory recognition of a union by the employers. Relief was obtained in a good number of cases. Disputes were filed in 3,095 cases during the year 1949-50 besides 1,199 cases pending from previous year. Of these 2,078 were settled and 145 cases sent up to Industrial Tribunal for adjudication.

250. The following statements give an account of disputes and strikes in West Bengal during 1941-50: (1) Statement O.62 being 'Industrial Disputes in West Bengal during 1941-50 of industries and extent'; (2) Statement O.63—'Industrial Disputes in West Bengal during 1941-50 classified by duration and number of men involved'; (3) Statement O.64—'Causes of Strikes and Nature of Settlement during 1941-50'; (4) Statement O.65—'Number of Strikes in Jute Spinning and Weaving Mills with men involved and loss of working days during 1941-50'; (5) Statement O.66—'Number of Strikes in Coal Mines and Iron and Steel and Foundry Industries during 1941-50 with men involved and loss of working days'.

STATEMENT O.62

No. of disputes classified by industry, 1941-50

Year	All Industries	Tea plantations	Jute Mills and Presses	Cotton Mills	Railway transport	Other factories	Conservancy
Total 1941-1950 .	1,857	56	295	141	9	..	36
Annual Average	232	14	37	18	3	..	9
1941 . . .	..	..	..	..	..	..	..
1942 . . .	..	..	..	..	..	..	..
1943 . . .	198	..	35	18	4	..	..
1944 . . .	202	..	42	13	2	..	..
1945 . . .	217	..	35	14	3	..	..
1946 . . .	393	..	77	38	..	..	..
1947 . . .	376	8	49	33	..	..	20
1948 . . .	197	27	26	12	..	..	9
1949 . . .	158	18	13	7	..	..	5
1950 . . .	116	3	18	6	..	..	2

STATEMENT 0.62—concld.

Year	Cargo handling Coolies	Road Transport	Coal Mine workers	Iron, Steel and Foundry industries	Miscellaneous	No. of men involved	No. of Man-days lost
Total 1941-1950	2	4	14	411	889	1,972,100	18,845,268
Annual Average	..	..	4	51	111	246,512	2,355,658
1941	..	..	..	..	..	..	..
1942	2	..	..	..	..	..	..
1943	..	..	2	46	91	157,328	633,163
1944	..	..	..	40	105	213,674	784,723
1945	..	..	1	56	108	236,243	1,709,888
1946	..	..	5	75	198	486,378	4,682,148
1947	..	..	..	88	178	412,432	5,884,742
1948	..	..	..	37	86	220,862	2,319,782
1949	..	4	6	37	68	152,775	2,191,529
1950	..	..	..	32	55	92,408	639,293

Source :—Department of Labour, West Bengal.

STATEMENT 0.63

Strikes classified by number of man-days and men involved, 1941-50

Year	Total No. of Strikes	Number of strikes in which the duration in man-days was					No. of strikes in which the No. of men involved was			
		10-99	100-999	1,000-9,999	10,000-99,999	100,000 and upwards	10-99	100-999	1,000-9,999	10,000 and upwards
Total 1941-1950	1,857	148	482	504	265	38	348	716	377	16
Annual Average	232	25	80	84	44	6	58	119	63	3
1941	..	..	..	..	..	..	..	..	..	..
1942	..	..	..	..	..	..	..	..	..	..
1943	198	..	..	..	..	..	..	..	..	..
1944	202	..	..	..	..	..	..	..	..	..
1945	217	41	76	61	37	2	57	115	42	3
1946	393	37	135	139	68	14	79	186	124	4
1947	376	30	103	133	78	12	89	179	107	1
1948	197	14	70	75	34	4	50	102	40	5
1949	158	7	53	60	33	5	39	80	36	3
1950	116	19	45	36	15	1	34	54	28	..

Source :—Department of Labour, West Bengal.

STATEMENT 0.64

Causes and results of strikes, 1941-50

Year	Number of strikes in which									Remarks
	the demands concerned were					the result was				
	Pay	Bonus	Personnel	Leave and hours	Other	Success	Partial success	Failure	Indefinite	
Total 1941-50	735	117	485	105	409	332	398	779	308	
Annual Average	92	15	61	13	51	42	50	97	44	
1941	..	..	..	..	..	..	..	..	..	
1942	..	..	..	..	..	..	..	..	..	
1943	99	5	10	3	81	55	63	60	18	2 cases not settled during the year.
1944	142	15	31	8	6	33	84	80	..	5 Ditto.
1945	96	25	45	16	35	38	47	88	36	8 Ditto.
1946	165	22	115	28	63	57	54	181	101	
1947	124	23	97	30	102	83	76	163	54	
1948	45	12	63	11	66	25	39	98	26	9 cases not settled during the year.
1949	39	12	73	4	30	24	28	49	50	7 Ditto.
1950	25	3	51	5	26	17	7	60	23	3 Ditto.

Source :—Department of Labour, West Bengal.

STATEMENT O.65

Number of strikes in jute spinning and weaving mills in 1941-50, with men involved and loss of working days, 1941-50

Year	No. of strikes	No. of men involved	No. of man-days lost
Total 1941-50 .	295	961,790	5,692,282
Annual Average	37	120,224	711,535
1941 . . .	..	..	..
1942 . . .	..	..	..
1943 . . .	35	93,520	311,377
1944 . . .	42	127,061	423,239
1945 . . .	35	62,654	362,356
1946 . . .	77	275,424	1,599,753
1947 . . .	49	187,463	1,316,875
1948 . . .	26	119,351	803,722
1949 . . .	13	54,581	559,090
1950 . . .	18	41,736	315,870

Source :—Department of Labour, West Bengal.

STATEMENT O.66

Number of strikes in coal mines and iron and steel and foundry industries, 1941-50, with men involved and loss of working days, 1941-50

Year	No. of strikes	No. of men involved	No. of man-days lost
Total 1941-50 .	425	304,180	4,273,680
Annual Average	53	38,022	534,210
1941 . . .	..	..	..
1942 . . .	..	..	..
1943 . . .	48	20,838	137,814
1944 . . .	40	45,053	126,550
1945 . . .	57	61,089	497,833
1946 . . .	80	55,655	1,715,384
1947 . . .	88	56,784	677,292
1948 . . .	37	10,488	461,624
1949 . . .	43	32,014	571,683
1950 . . .	32	21,659	85,500

Source :—Department of Labour, West Bengal.

251. The following note on the medical, educational, and other welfare facilities provided by employers of organised industries has been kindly supplied by the Joint Secretary to the Labour Department, West Bengal:

Precise and up-to-date data are not available. Some welfare arrangements have been made after the Rege Committee submitted report. These are in a large measure due to the awards of the Industrial Tribunals given after August, 1947 and the enforcement of the Factories Act, 1948. Information collected on a voluntary basis is noted below:—

(i) *Sanitary and Medical Facilities.*—In the Jute Textile industry every mill has a dispensary under a qualified doctor who is assisted by one or more compounders. In the Cotton Textile Industry there is room for considerable improvement on the existing system of medical aid and sanitary arrangements. Some of the Mills have either a dispensary or have arrangements with a local hosiptal or dispensary for medical aid to their workers when necessary. In the Engineering Industry there is a number of dispensaries and a few hospitals. It is usual, however, with the smaller industrial undertakings to arrange with a local hospital, dispensary or a physician for the provision of medical advice and medicine according to necessity.

(ii) *Educational Facilities.*—There are schools in 32 jute mills for imparting education to the children of the workers, and a school is under construction in another jute mill. In addition there are schools attached to the five Labour Welfare Centres run by the Indian Jute Mills Association at Hazinagar, Kankinara, Serampur, Titagarh and Bhadreswar; night schools are also run in these centres for imparting education to adult workers.

Sewing and cooking classes are held in two of these centres for the benefit of women workers. Talks on health, hygiene, general knowledge, etc., are also arranged periodically at these centres, particularly for the benefit of women workers.

(iii) *Canteens.*—Canteens have been provided in many units in the organised industries, *viz.*, Jute and Cotton Textiles and Engineering. 48 Jute Mills under the Indian Jute Mills Association have canteens and 14 other mills have their canteens under construction. Quite a number of other jute mills and cotton mills have canteen arrangements for the supply of either tea and light refreshments or tea and cooked food. Remaining mills are also gradually going to have canteen arrangements as a result of the awards of the General Tribunals and the provisions of the Factories Act, 1948. In the Engineering Industries, particularly in the larger undertakings, there appear to be satisfactory canteen arrangements as indicated by the figures available in respect of 97 engineering concerns.

(iv) *Rest and Recreational Facilities.*—These facilities exist in a few concerns. In the jute and cotton textile industries provision of adequate rest shelters have to be made under the awards of the General Tribunals in the two industries. In the Enginering group of industries there are at present practically no arrangements; and under the miscellaneous group of industries whatever arrangements have been made by a few bigger units in the form of rest shelters and sporting and dramatic clubs and libraries are, in fact, enjoyed by the supervisory and clerical staff only.

The five Welfare Centres mentioned in para (ii) above provide for indoor and outdoor recreational facilities for the jute mill workers. The indoor activities include debates, discussions, dramatic functions, the fostering of libraries and reading rooms, etc. Outdoor games such as football, mass drill, wrestling, etc., form some of the important items of physical culture. Apart from this, intermill football competitions and intermill sports competitions are organised by the Association's Labour Officers. 22 jute mills have got recreation centres.

The awards of the Major Tribunals set up for the jute textiles, cotton textiles and engineering industries as mentioned above laid down elaborate directions for the provision of various welfare facilities by the employers concerned. A survey is being made to ascertain how far those directives have been implemented.

252. This section on the material condition of industrial labour may be concluded with a review of the working of the Workmen's Compensation Act. Unfortunately figures before 1946 relate to undivided Bengal as a whole rendering comparison with post-partition years difficult; the following statement has therefore been confined to the years 1946, 1948 and 1949. The statement is a consolidated return of accidents and compensation paid for the three years in major industries in West Bengal.

STATEMENT O.67

Compensations to workmen, 1946, 1948 and 1949

Name	Year	Number of returns received	Average No. of workers employed daily		Accidents resulting in			Compensation paid in rupees for		
			Adults	Minors	Death	Permanent Disablement	Temporary Disablement	Death	Permanent Disablement	Temporary disablement
Engineering	1946	233	66,007	341	17	269	1,843	36,294	112,070	33,049
	1948	140	45,626	39	17	467	811	12,773	46,417	20,390
	1949	236	39,864	60	8	138	1,378	17,264	72,143	32,989
Rice Mills	1946	251	17,669	5	1	3	3	630	1,039	49
	1948	238	9,612	46	..	..	1	..	..	164
	1949	233	8,207	2	..	..	2	..	..	25
Tea Estates	1946	459	139,282	19,768	7	6	39	3,260	2,578	747
	1948	232	120,910	18,033	8	10	64	5,745	4,063	1,537
	1949	257	149,566	19,103	12	10	103	9,620	3,205	2,873
Jute Mills	1946	250	303,053	135	29	479	3,316	37,010	138,690	47,496
	1948	116	321,379	232	29	514	3,989	48,832	195,228	74,720
	1949	128	309,019	47	17	616	5,211	35,614	233,521	90,973
Mines	1946	133	88,476	97	90	116	1,043	72,969	34,779	27,984
	1948	154	65,113	37	104	174	1,369	142,108	63,184	53,403
	1949	136	76,446	38	82	175	1,608	125,644	102,935	66,932

Source :—Annual Reports of the Commissioner of Workmen's Compensation, West Bengal.

VI. Material Condition during 1931-50 of the Population engaged in Livelihood Class VI (Commerce)

253. Very little investigation seems to have been made on the material condition of this livelihood class during the last two decades. Neither the Provincial Banking Inquiry Committee nor the Board of Economic Inquiry nor the Land Revenue Commission thought fit specially to investigate the economics of the small trader either in the village or in the town, content to leave him alone in a mood of *laissez faire*. The

survey of Rural Indebtedness in 1946-47 discussed the trader only so far as he participated in rural credit, and his share, so far as the report makes out, was small. There is no choice but to generalise on one's own experience. The decade 1931-40 was not particularly bright for wholesale and retail traders, markets going 'down in the dumps' immediately after 1931, but reviving slightly after 1936. The whole decade was however characterised by lack of enterprise and an all-pervasive dullness. The first three years of the Second World War (1939-41), fortified by the Defence of India Act and the remoteness of the theatre of war, were almost as uneventful as the previous decade, but things started humming as soon as the war knocked on the eastern frontier. Commerce and trade sprang into fierce life, and aided by hoarding and the black market, drew more and more persons into their orbit. It was no longer a question of keeping the shop ticking over, hoping for better times, but of every booth or stall suddenly becoming a prospective gold mine. Apart from big business and wholesale trade which raised a really big class of the *new rich,* anybody who had ever so little to spare went into trade. The boom lasted till the end of 1948, in spite of all manner of odious controls and permits. In 1949 the boom showed signs of subsiding but stiffened with the Korean War in 1950. The partition of the country also helped to keep the markets steady, and the revelations of devaluation measures taken in 1945, special investigations of the Income-tax Department, and voluntary discloures of undeclared profits during the Second World War afford only a very modest estimate of how profitable commerce must have been during the decade, and beyond it up to the end of 1951.

254. As for employees in commercial establishments and shops, the Shop Assistants Act passed at the beginning of the decade gave a compulsory holiday of a day and a half in a week to all shop assistants in the State. Wages and salaries, although poor and more often below the poverty line in 1940, rose quite steeply after 1945 even in small retail shops. In mercantile firms salaries and other attendant benefits were made so attractive after 1945 that these firms and commercial houses became superior rivals to the Government in securing the country's brains and efficiency. Certainty of tenure and security, and not emoluments or other privileges, seem to be the only two considerations which still tip the scales for the middle classes in their preference for Government situations.

VII. Material Condition during 1931-50 of the Population engaged in Livelihood Class VII (Transport)

255. This livelihood may be divided into two groups: mechanised transport and unmechanised rural transport. Much of mechanised transport is in the control of the Government as employer and powerful trade unions of employees. The most notable are the State railways, marine and internal waterways, shipping companies, associations of motor bus and lorry owners and their employees, the Tramways, the Airways, and recently the State transport ventures. In the private employment sector come the chauffeurs and coachmen. On account of the technical skill involved employees in these avenues have always had a modicum of bargaining strength, and their incomes, even in the lowest levels, have not compared at any time unfavourably to those in the Class IV services of the Government. In the middle class level of clerical and supervisory staff emoluments have been almost the same as those enjoyed by similar groups in the Government's pay. The other wider group of communications, the Postal and Telegraph systems, comes under Livelihood Class VIII and an account of their condition will be appropriately made in the next section. Roughly speaking the lowest income

levels in Transport reached the ceiling of Rs. 11 to Rs. 13 during 1931-40, and the middle class employee was in the slab between Rs. 35 and Rs. 80 per month. The private chauffeur and coachman used to be paid between Rs. 22 and Rs. 25 per month.

256. These standards continued till 1942 with small grain compensation allowances supplementing basic pays from 1941, but between 1943 and 1946 a series of strikes, threatened or matured, together with the Government's anxiety to assure a "living wage above the poverty line", led to the appointment of the Central Pay Commission which reported their recommendations in May 1947. The implementation of the recommendations was slightly delayed owing to the partition of India in the following August, but once they were adopted discontent largely disappeared. It is needless to go over again the recommendations of the Commission which covered all possible cases and it will suffice here to make a note of the Commission's verdict on the lowest grades. In the lowest grades, while the Commission did not raise the basic wages or salaries a very great deal, they increased the total earnings to about five times of those obtaining in 1939. Thus an employee earning about Rs. 13 per month in 1939 was to receive more than Rs. 65 in total emoluments. The middle class employee's total earnings began from a minimum of about Rs. 100 per month.

257. The Recommendations of the Central Pay Commission threw a shadow over all other owners of transport employment and all employers were compelled to raise pays and emoluments to correspond roughly with those in Government transport organisations. A special tribunal set up to adjudicate between the Calcutta Tramways and their employees gave their award in 1947 fixing a minimum of Rs. 67-8 for the lowest category and between Rs. 90 and Rs. 100 for some of the lowest clerical groups. The pays of motor bus and lorry drivers and cleaners had already been increased as a result of scarcity of drivers and cleaners in civilian situations on account of the heavy demand for them in the armed forces, and after 1945 a monthly wage of more than Rs. 90 was customary for motor drivers. The usual pay of cleaners stood at Rs. 45 in 1945 whereas in 1939 it was in the neighbourhood of Rs. 10. Roughly, therefore, wages and salaries followed the increased cost of living but more or less corresponded to the latter in organised transport services during 1941-50.

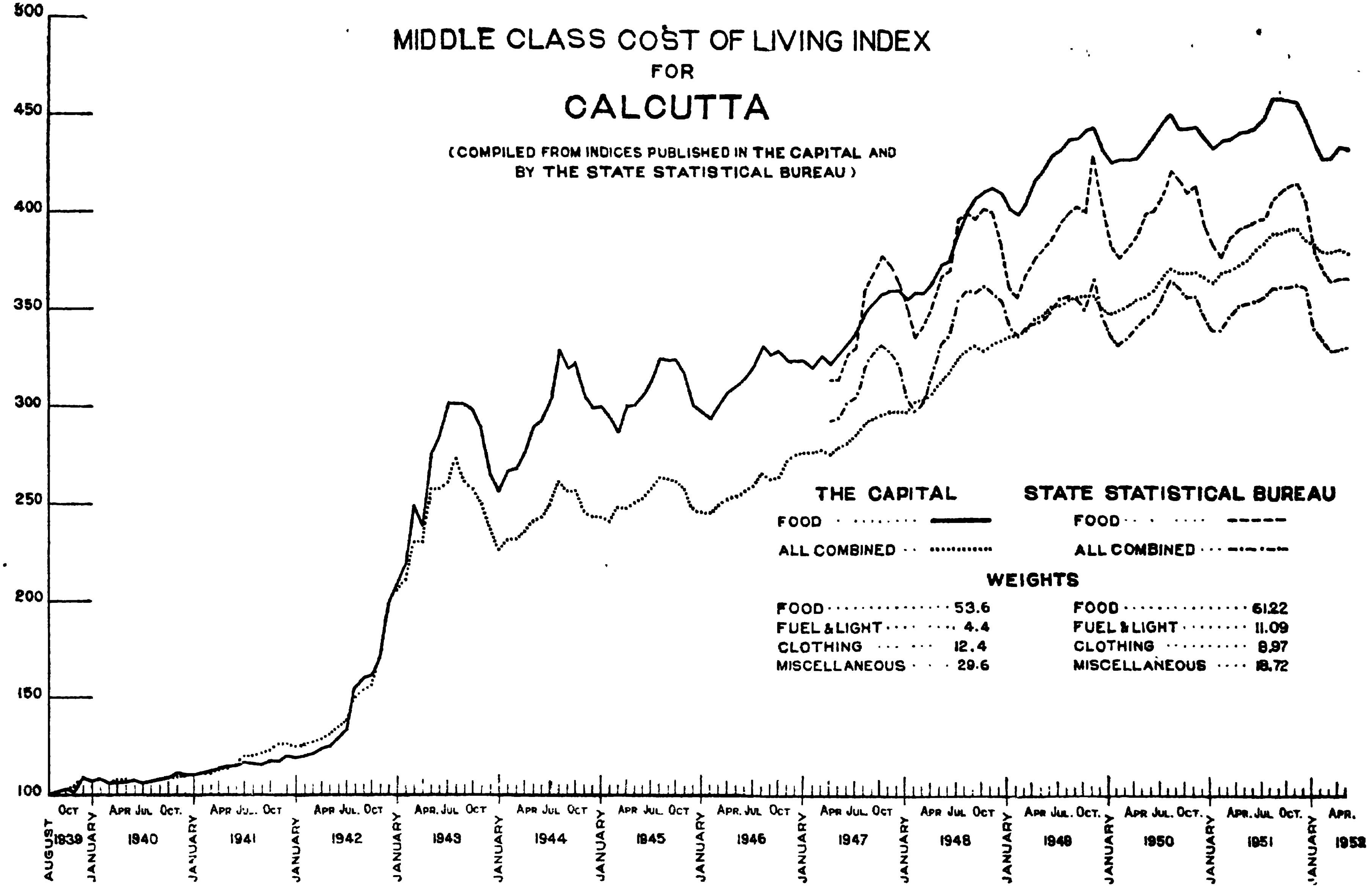
258. In the rural areas, rural transport consisting of the bullock cart and the hand-propelled boat reacted more slowly to the rising cost of living, because it took a longer time to work out the economics of food, fodder and cost in a subsistence pattern where even the rural transport worker lives to a certain extent on home produce and feeds his bullocks on the straw or stubble of his fields. Before 1939 the usual rate of transport worked out roughly at the rate one anna per mile for the whole cart or boat. This continued till about 1943, but after the famine, on account of the scarcity of bullocks in the hands of share croppers and agricultural labourers—bullocks having largely died of the famine or having been sold off, boats, too, having been sold off or broken up—transport rates suddenly shot up until in 1947-48 they stood generally at one anna per maund per mile. Rural transport is one of the principal sources of augmentation of the annual earnings of the first three agricultural livelihoods.

VIII. Material Condition during 1931-50 of the Population under Livelihood Class VIII (Other Services and Miscellaneous sources)

259. Although all income levels appear in this class the predominating economic level in what is generally called the middle-classes, or the educated 'gentleman' who having done his

MIDDLE CLASS COST OF LIVING INDEX
FOR
CALCUTTA

(COMPILED FROM INDICES PUBLISHED IN THE CAPITAL AND BY THE STATE STATISTICAL BUREAU)



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term at the high school and university enters life as a civil servant or a mercantile employee, or a teacher or in a profession. In this section, therefore, discussion will be confined solely to this class to the exclusion of others.

260. A great deal of research and investigation was done during the decade 1931-40 into the living conditions of the middle classes but almost all of it was vitiated by one reason or another: either (*a*) on account of an insufficient or wrongly devised sample, or (*b*) an inadequate questionnaire, or (*c*) lack of true response, or (*d*) wrong selection of an unrepresentative period of time. In 1931 as well as in 1941 an attempt was made to find out the extent of educated unemployment through the census but both attempts failed rather sadly of even a tentative estimate. In the result, although a large number of attempts was made to investigate the material condition of the middle classes in 1931-40 no results were sufficiently representative or reliable to be quoted *in extenso*.

261. The only reference in the thirties upon which one can fall back is the Report to the Bengal Government of L. A. Chapman, in 1935 in which he concluded that Rs. 13 and Rs. 35 were wages that could be paid to peons and lower grade clerks respectively consistent with their standing in life and calculated to keep them in reasonable living conditions, 'above the poverty line'. These pay scales were accepted by the Government and put into operation immediately and they held up to 1941 when small grain compensatory allowances were added. In the years that followed Government grain shops were introduced to supply essential cereals and food articles to certain classes of Government employees at subsidised rates, to which dearness allowance on a graduated scale came to be added. But in 1946 matters came to a head and both the Central and Provincial Governments appreciated the necessity of conducting inquiries into the family budgets of their middle class employees with a view to estimating a minimum wage. These inquiries were probably the only of their kind which were authoritative and based on an adequate sample, carried out in that strictness of confidence which ensured reliable returns. They helped the Central Pay Commission in their deliberations, and extensive quotations from their reports will now be made.

262. The first is the *Report on an Inquiry into the Family Budgets of Middle Class Employees of the Central Government* by the Office of the Economic Adviser to the Government of India, published in April 1948. It is a priced document and available to the public. The second is a report on *A Short Term Inquiry into the Living Conditions of the Bengali Middle Class "Bhadralok" with a view to Estimating a Minimum Wage* by the Provincial Statistical Bureau of Bengal, 1946 and printed in 1947 for official use only. The first inquiry was conducted for the period November 1945 to August 1946, while the second was conducted in March 1946.

263. The following notes are summarised from the Central Government Report for Bengal and Assam (excluding Calcutta).

264. The percentage distribution of families by monthly income groups was as follows:

STATEMENT O.68

Percentage distribution of families by monthly income, 1946

Below Rs. 100	Rs. 100 to 125	Rs. 125 to 150	Rs. 150 to 175	Rs. 175 to 200	Rs. 200 to 225	Rs. 225 to 250	Rs. 250 to 275	Rs. 275 to 300	Rs. 300 and above
8·7	14·5	17·4	11·5	17·4	5·8	1·5	7·2	1·5	14·5

The percentage distribution of families by monthly expenditure classes was as follows:

STATEMENT O.69

Percentage distribution of families by monthly expenditure, 1946

Below Rs. 100	Rs. 100 to 125	Rs. 125 to 150	Rs. 150 to 175	Rs. 175 to 200	Rs. 200 to 225	Rs. 225 to 250	Rs. 250 to 275	Rs. 275 to 300	Rs. 300 and above
1·5	2·9	16·0	13·0	10·2	8·7	10·1	7·2	8·7	21·7

265. About 41 per cent. of the families earned less than Rs. 150, 29 per cent. between Rs. 150 and Rs. 200, 7 per cent. between Rs. 200 and Rs. 250, 9 per cent. between Rs. 250 and Rs. 300 and about 14 per cent. Rs. 300 or more. On the expenditure side about 20 per cent. of the families spent less than Rs. 150 per month, 23 per cent. between Rs. 150 and 200, 19 per cent. between Rs. 200 and Rs. 250, 16 per cent. between Rs. 250 and 300, and about 22 per cent. of them spent Rs. 300 or more. The quartile values of the income in rupees were:

First quartile = Rs. 127·6
Median = Rs. 170·4
Third quartile = Rs. 223·7

The quartile values of the expenditure in rupees were:

First quartile = Rs. 158·8
Median = Rs. 218·4
Third quartile = Rs. 290·5

266. Thus about 29 per cent. of the total families lay in the same expenditure and income classes, 66 per cent. in the expenditure classes above and only 5 per cent. in the expenditure classes below the corresponding income classes.

267. Before going into the details of income and expenditure brief mention should be made of the average composition of families and their modal size. Of the total number of families investigated 47·8 per cent. were natural families and 52·2 were joint. The average number of persons living in the family was 6·9, the average number of persons living away from the family 1·2, and the size of the family inclusive of dependants living away from family was 8·1. The number of persons per family increased almost continuously from 4·4 persons in the lowest income group to 7·6 in the penultimate group, falling thereafter to 6·4 in the highest group. The average number of earners per family was 1·10 including the head of the family, the number varying from 1·0 in the lowest income group to 1·6 in the highest but one income group. The number of earners in the highest income group was 1·2. There were no female earners in any of the income groups (the position in respect of this feature has considerably improved since 1945). The number of dependants per earner increased from 4·3 persons in the lowest income group to 7·0 persons in the income group Rs. 150-200. Economic pressure seemed to be maximum on the income groups Rs. 100-150 and Rs. 150-200 wherein 5·4 equivalent male adults lived on the earnings of one man. The lowest income group bore the minimum pressure at the rate of 3·5 equivalent male adults per earner. About 20·3 per cent. of the families consisted of 6 to 7 consumption units.

268. Returning to income and expenditure, the average income of the head of the family from pay and allowances was Rs. 163-9 and from other sources such as land, investments, etc., Rs. 31 per month. The greatest single source of income was the earnings of the head of the family from pay and allowances accounting for 82 per cent. The average monthly income per consumption unit—for it is more uniform to talk in terms of consumption units than *per capita*—varied from Rs. 23-2 to Rs. 82-1 and the average monthly expenditure for it from Rs. 33-5 to Rs. 82-1. The deficit per unit varied from *nil* to as much as Rs. 15-1 per month.

269. An analysis of surplus and deficit budgets will shed more light on the above statement. Budgets were classi-

fied into surplus and deficit and by their ratio to the total number. These are shown in the following statement which demonstrates that 77 per cent. of the budgets were *deficit* and only 23 per cent. *surplus.*

STATEMENT O.70

Surplus and deficit budgets by income groups, 1946

Income group	Total budgets	Surplus budgets	Deficit budgets	Percentage of surplus budgets to total	Percentage of deficit budgets to total
Below Rs. 100	24	..	24	..	100
Rs. 100 to Rs. 150	88	12	76	14	86
Rs. 150 to Rs. 200	76	16	60	21	79
Rs. 200 to Rs. 250	20	8	12	40	60
Rs. 250 to Rs. 300	32	8	24	25	75
Rs. 300 and above	36	20	16	56	44
TOTAL	276	64	212	23	77

270. The Survey investigated how much of this deficit was real, that is, how much of it was caused by expenditure over essential commodities and how much over non-essentials, and constructed the following statement of percentage expenditure by income groups.

STATEMENT O.71

Expenditure by items of expenditure and income groups, 1946

(Percentages are shown in brackets)

Item of expenditure	Income groups						
	Below Rs. 100	Rs. 100 to 150	Rs. 150 to 200	Rs. 200 to 250	Rs. 250 to 300	Rs. 300 and above	All
	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.
Food	55 12 (41·6)	83 1 (46·1)	96 1 (43·6)	96 12 (41·2)	121 4 (43·3)	164 5 (40·0)	99 8 (41·6)
Fuel and lighting	9 1 (6·7)	8 13 (4·9)	10 12 (4·9)	12 5 (5·3)	12 13 (4·6)	18 0 (4·4)	11 5 (4·7)
Clothing	11 11 (8·7)	14 1 (7·8)	17 4 (7·8)	17 5 (7·4)	17 2 (6·1)	33 5 (8·1)	18 3 (7·6)
Furniture and household requisites	1 4 (0·9)	3 2 (1·7)	3 14 (1·8)	4 15 (2·1)	4 14 (1·7)	5 3 (1·3)	3 12 (1·6)
Housing	10 1 (7·5)	12 6 (7·0)	14 3 (6·4)	22 6 (9·5)	13 15 (5·0)	24 0 (5·8)	15 2 (6·3)
Miscellaneous	46 6 (34·6)	58 9 (32·5)	78 0 (35·5)	80 15 (34·5)	110 4 (39·3)	165 9 (40·4)	91 7 (38·2)
TOTAL	134 3 (100)	180 0 (100)	220 2 (100)	234 10 (100)	280 4 (100)	410 6 (100)	239 5 (100)

271. The largest expenditure was on food with the omnibus item of 'miscellaneous' naturally coming second. Expenditure on fuel, lighting, clothing, furniture, household requisties and housing varied between narrow amplitudes; but miscellaneous expenditure marked a continuous rise from 32·5 per cent. in the second group to 40·4 per cent. in the highest.

272. In food the quality improved with the higher income group; this was confirmed by the Bengal inquiry. There is thus plenty of evidence of a chronic protein and fat hunger in the lower incomes which the population invariably takes the earliest opportunity of fulfilling as soon as it gets a rise in pay. The following statements show the percentage of expenditure on the different items of food classified by income groups:

STATEMENT O.72

Expenditure on items of food by income groups, 1946

Items of food	Income groups						
	Below Rs. 100	Rs. 100 to 150	Rs. 150 to 200	Rs. 200 to 250	Rs. 250 to 300	Rs. 300 and above	All
Cereals	26·8	28·9	24·3	22·9	21·7	16·2	23·7
Pulses	4·7	4·0	4·3	4·1	3·3	2·3	3·7
Milk and fats	24·2	28·1	26·9	31·1	27·2	29·0	27·8
Fruits and vegetables	16·4	16·0	15·9	13·2	18·0	15·2	16·0
Condiments	4·7	3·7	3·8	3·2	4·8	3·0	3·8
Animal food	13·0	10·6	17·2	18·2	15·6	17·8	15·3
Miscellaneous	10·2	8·7	7·6	7·3	9·4	16·5	9·7
Total	100	100	100	100	100	100	100

273. The increasing expenditure on milk, fats, animal food and miscellaneous foods with higher income groups is better brought out if a comparison is made of expenditure on individual items. The following statement works out the ratio of expenditure over individual items between income groups 6 (Rs. 300 and above) and 1 (below Rs. 100):

STATEMENT O.73

Expenditure on items of food, 1946

Items of food	Average for income group 6 divided by average for income group 1
Cereals	1·8
Pulses	1·5
Milk and fats	3·5
Fruits and vegetables	2·7
Condiments and spices	1·9
Animal food	4·0
Miscellaneous (tea, sugar, sweets, etc.)	4·8

274. In regard to housing 74 per cent. of the families paid rent, the remainder living in self-owned or free-of-rent houses. Among those who paid rent 65 per cent. paid rents below Rs. 10, 20 per cent. between Rs. 10 and Rs. 15, and 15 per cent. Rs. 15 and above. Two-roomed houses were the most common accommodation amongst all income group : 54·8 per cent. of families lived in two-roomed houses, 16·7 per cent. in three-roomed, 9·5 per cent. in one-roomed and the rest in houses of four or more rooms.

275. A better insight into the degree of overcrowding is given by the distribution of families by number of persons, and the number of equivalent adult males, per room in the following statements:

STATEMENT O.74

Distribution of families by number of persons per room, 1946

Number of persons per room	1—2	2—3	3—4	Total
Number of families	9	17	16	42
Percentage of families	21	40	39	100

STATEMENT O.75

Distribution of families by number of adult male equivalent per room, 1946

Number of equivalent adult males per room	1—2	2—3	Total
Number of families	18	24	42
Percentage of families	43	57	100

276. The statements show that overcrowding is fairly acute and it is difficult to observe that decency and privacy so cherished by the middle classes. The effect on young children could not possibly be wholesome.

277. The Editor of the trade journal *Capital* and the Bengal Chamber of Commerce have been good enough to permit the reprinting of their Middle Class Cost of Living Index numbers for Calcutta, compiled since August 1939 with that month as base, and the following is reproduced under acknowledgments to them. While the system of weights and the items that go to make up Food, Fuel and Lighting,

Clothing and Miscellaneous are what the journal and the Chamber wish to keep to themselves, yet the arrangement of the numbers, computed on perfectly comparable articles every time, will provide a complete picture of the movement of middle class cost of living in Calcutta since 1939. The weights are constant, being 53·6 for Food 4·4 for Fuel and Lighting, 12·4 for Clothing, and 29·6 for Miscellaneous. The numbers are set forth below:

STATEMENT O.76

Middle class cost of living index number for Calcutta, August 1939—May 1952

Month and year	Food	Fuel & Lighting	Clothing	Miscellaneous	Combined Index
August 1939	100	100	100	100	100
September 1939	102	99	108	100	102
October 1939	103	102	110	100	103
November 1939	102	102	120	100	104
December 1939	109	102	130	100	109
January 1940	107	104	125	100	107
February 1940	108	104	124	100	107
March 1940	106	105	122	100	106
April 1940	106	105	123	101	107
May 1940	106	105	122	101	107
June 1940	107	105	117	101	106
July 1940	106	106	119	101	106
August 1940	107	108	116	101	106
September 1940	108	108	118	101	107
October 1940	109	107	119	102	108
November 1940	111	107	121	102	109
December 1940	110	108	122	102	109
January 1941	110	108	124	102	109
February 1941	111	110	126	102	110
March 1941	112	110	130	102	111
April 1941	113	111	136	102	112
May 1941	114	116	140	102	114
June 1941	114	116	152	102	115
July 1941	117	117	179	102	120
August 1941	116	117	185	102	120
September 1941	115	125	187	102	121
October 1941	117	124	199	102	123
November 1941	117	129	226	102	126
December 1941	120	146	204	103	126
January 1942	118	148	192	106	125
February 1942	119	170	186	107	126
March 1942	121	181	190	107	127
April 1942	124	157	194	107	129
May 1942	125	166	200	108	131
June 1942	129	157	212	110	135
July 1942	133	166	215	111	138
August 1942	155	175	215	111	150
September 1942	160	159	225	114	154
October 1942	162	169	227	114	156
November 1942	171	177	317	116	173
December 1942	198	239	359	118	196
January 1943	208	328	361	119	206
February 1943	219	195	394	123	211
March 1943	249	182	410	126	230
April 1943	239	213	438	128	230
May 1943	276	196	512	128	258
June 1943	285	196	469	128	258
July 1943	302	231	410	128	261
August 1943	335	229	377	128	274
September 1943	302	229	418	128	262
October 1943	299	229	390	133	258
November 1943	289	194	379	133	250
December 1943	265	194	376	136	237
January 1944	256	194	322	137	226
February 1944	267	194	309	137	231
March 1944	268	194	318	136	232

STATEMENT O.76—contd.

Month and year	Food	Fuel & Lighting	Clothing	Miscellaneous	Combined Index
April 1944	278	194	314	136	236
May 1944	291	194	304	136	242
June 1944	294	194	298	136	243
July 1944	305	194	300	136	250
August 1944	331	198	289	137	262
September 1944	322	198	289	135	257
October 1944	322	202	283	135	257
November 1944	306	202	276	135	247
December 1944	300	202	274	135	244
January 1945	301	202	273	135	244
February 1945	296	202	273	139	242
March 1945	287	202	307	140	242
April 1945	301	202	307	140	249
May 1945	302	202	313	140	251
June 1945	307	202	313	140	254
July 1945	315	185	328	140	259
August 1945	326	185	328	140	265
September 1945	325	185	328	140	264
October 1945	326	185	311	140	263
November 1945	317	185	311	140	258
December 1945	301	185	311	140	249
January 1946	297	185	311	140	247
February 1946	295	185	311	141	246
March 1946	302	185	311	141	250
April 1946	308	185	311	141	253
May 1946	312	182	311	140	255
June 1946	316	182	311	140	257
July 1946	322	182	311	140	260
August 1946	332	183	311	140	266
September 1946	328	187	311	140	264
October 1946	330	195	311	140	265
November 1946	325	202	311	175	273
December 1946	325	202	311	185	276
January 1947	325	198	320	185	277
February 1947	322	205	320	190	277
March 1947	327	205	320	184	278
April 1947	323	205	320	184	276
May 1947	328	205	320	186	280
June 1947	333	205	320	186	282
July 1947	340	214	320	186	286
August 1947	350	218	320	186	292
September 1947	354	218	326	186	295
October 1947	359	218	326	186	297
November 1947	361	218	326	186	299
December 1947	361	218	326	187	299
January 1948	356	218	349	187	299
February 1948	360	220	367	187	304
March 1948	360	220	372	189	305
April 1948	366	220	382	189	309
May 1948	375	220	382	189	314
June 1948	377	220	405	192	319
July 1948	391	220	405	192	326
August 1948	402	220	405	192	330
September 1948	408	224	385	192	333
October 1948	412	224	349	192	331
November 1948	414	224	349	199	334
December 1948	411	224	357	207	336
January 1949	404	222	373	222	338
February 1949	401	223	373	230	339
March 1949	407	223	366	230	341
April 1949	418	220	366	230	347
May 1949	424	220	358	230	349
June 1949	431	220	358	230	353
July 1949	433	220	358	230	354
August 1949	439	220	349	230	357
September 1949	440	220	342	231	358
October 1949	444	220	342	231	359
November 1949	446	220	342	231	359

STATEMENT 0.76—concld.

Month and year	Food	Fuel and Lighting	Clothing	Miscellaneous	Combined Index
December 1949	435	220	334	231	353
January 1950	427	220	337	235	350
February 1950	429	220	341	238	352
March 1950	429	220	347	238	353
April 1950	430	220	347	238	357
May 1950	435	220	358	239	358
June 1950	442	223	358	240	362
July 1950	449	223	372	242	368
August 1950	453	223	393	242	373
September 1950	445	223	401	245	371
October 1950	445	223	401	246	371
November 1950	446	222	401	244	371
December 1950	441	222	401	246	369
January 1951	435	222	408	246	366
February 1951	439	222	416	250	371
March 1951	440	222	423	250	372
April 1951	443	222	430	252	375
May 1951	443	222	454	252	378
June 1951	446	222	487	255	384
July 1951	451	222	487	255	386
August 1951	461	222	487	255	392
September 1951	461	222	482	255	392
October 1951	460	222	482	261	393
November 1951	459	222	482	265	394
December 1951	449	222	482	265	388
January 1952	438	231	503	266	386
February 1952	430	231	503	266	382
March 1952	430	231	503	266	382
April 1952	436	231	486	266	383
May 1952	435	233	477	266	381

NOTE—Quotations for clothing during April-October 1942, 1946 and 1947 were nominal. as stocks were not available.

278. It may sound paradoxical but is nevertheless true that index numbers in other towns in West Bengal were in all probability higher at each period than in Calcutta, wherever the middle classes had to buy cereals from the open market. Calcutta came under rationing from January 1944 and many essential commodities of daily use have always been cheaper in Calcutta, as all-the-year-round propositions, than in other towns of the State. It is significant that the index number is higher today than in 1946-48 when most pay reforms were introduced, and whereas the population in organised industries under Livelihood Class V have from time to time had their wages and emoluments adjusted through the help of tribunals, middle class salaried workers have not had the benefit of increases corresponding to the cost of living index since 1947-48. It is perhaps no fortuitous coincidence that social and political unrest is more active in the agrarian and middle class sectors today than in the industrial and organised labour fields.

279. To take brief stock of the material condition of the eight livelihood classes it may be concluded that Livelihood Classes I, II, III, IV and VIII have been the slowest to match incomes with rising costs of living; the Ist, IInd and IVth agricultural classes having shown the least elasticity in their incomes, and Class VIII having been one of the most tardy in bargainings, Classes V, VI and VII have endeavoured most to secure increased earnings to meet increasing costs. As a whole there has not been so much of a rise in the standard as in the cost of living while the general level of income has increased in terms of money earned but not in terms of goods acquired or benefits accumulated.

280. It is customary to take stock of the growth of the cooperative movement in census reports. Unfortunately

the cooperative movement is not much in the forefront and an account of its progress will not provide an index to the movement of wealth within the State. A particular type of society, the Multipurpose Society, which some are in the habit of deprecating, without a doubt thoughtlessly, as very much multi with very little purpose, has gained popularity in recent years and the way it has been put to work in certain areas augurs well for the cooperative movement, and it looks as if this particular type has caught the spirit and principal by the right lug and bids fair to prosper. The following statement for 1946-47 to 1949-50 records the progress of the movement after the Partition. Reference to earlier years in respect of West Bengal is precluded by the difficulties of calculating and separating real assets and liabilities from the statements for undivided Bengal.

STATEMENT O.77

Progress of the cooperative movement, 1946-49

Class of Societies	No. of Societies		No. of members		Reserve and other funds (in million rupees)		Working capital (in million rupees)	
	1946-47	1947-48	1946-47	1947-48	1946-47	1947-48	1946-47	1947-48
I. Central Societies—								
TOTAL	53	60	12,942	13,513	9·33	9·63	54·00	55·24
Provincial Bank	1	1	201	225	5·90	5·94	33·91	34·96
Central Banks	39	40	10,938	11,055	3·10	3·28	19·22	19·27
Producers' Unions	12	18	1,616	1,951	·26	·33	·80	·93
Central Anti-malarial Societies	1	1	187	282	·07	·075	·076	·08
II. Agricultural Societies (15 types in 1947-48)	11,463	11,625	282,721	297,278	4·67	4·64	12·32	12·53
III. Non-Agricultural Societies (32 types in 1947-48)	1,430	1,803	342,797	380,197	10·68	12·38	72·38	77·91
GRAND TOTAL (1946-47, 1947-48)	12,946	13,488	638,460	690,988	24·68	26·65	138·70	145·68

Class of Societies	No. of Societies		No. of members		Reserve and other funds (in million rupees)		Working capital (in million rupees)	
	1948-49	1949-50	1948-49	1949-50	1948-49	1949-50	1948-49	1949-50
I. Central Societies—								
Total	68	74	13,947	14,739	10·72	11·06	73·65	59·55
Provincial Bank	1	1	79	82	6·67	6·89	35·21	34·34
Central Banks	40	40	11,135	11,161	3·38	3·39	20·62	19·13
Producers' Unions	26	32	2,301	3,097	·60	·71	17·74	6·00
Central Anti-malarial Societies	1	1	432	399	·075	·076	·082	·081
II. Agricultural Societies (19 types in 1949-50)	12,112	13,185	333,219	448,840	4·69	4·96	14·43	18·91
III. Non-Agricultural Societies	2,130	2,279	410,249	447,290	15·04	16·18	93·46	97·72
GRAND TOTAL (1948-49, 1949-50)	14,310	15,538	757,415	910,869	30·45	32·20	181·54	176·18

281. This chapter may be concluded with brief mention of two topics: crime and civil litigation.

282. Intensification of the struggle for existence seems to have led to steady increases in crime after 1945, and demobilisation after the war must have set at large the ruffianly type who profited by contacts with those who loafed around the armed

services. In civil litigation whereas money suits continued fairly steady rent suits declined after 1946, but title and other suits registered a small increase. Statement O.78 relates to criminal justice during 1941-50, Statement O.79 to civil suits during the same period.

STATEMENT O.78

Criminal Justice—Number of criminal cases tried in West Bengal, 1941-50

Year	Serious Crimes						Total of Cog. and Non-Cog. Classes
	Cognisable Class			Non-Cognisable Class			
	I	II	III	I	II	III	
1941 . . .	1,538	2,467	11,553	931	1,620	2,238	20,347
1942 . . .	835	2,357	10,400	806	1,160	2,060	17,618
1943 . . .	1,179	2,446	15,640	791	1,257	2,019	23,332
1944 . . .	1,110	2,469	12,209	761	1,406	2,182	20,137
1945 . . .	1,134	2,773	12,867	743	1,247	1,893	20,657
1946 . . .	2,224	4,602	14,830	864	1,567	2,010	26,097
1947 . . .	2,192	3,278	14,432	717	1,082	1,737	23,438
1948 . . .	2,821	3,878	18,980	949	2,477	2,838	31,943
1949 . . .	2,814	4,198	20,122	1,166	1,760	2,794	32,854
1950 . . .	3,646	4,759	20,504	1,119	1,308	3,213	34,549

Year	Minor Crimes						Total of Cog. and Non-Cog. Classes
	Cognisable Class			Non-Cognisable Class			
	IV	V	VI	IV	V	VI	
1941 . . .	48,973	26,099	19,956	12,501	6,225	14,027	127,781
1942 . . .	35,644	22,602	16,949	12,592	6,414	13,377	107,578
1943 . . .	39,649	26,568	21,757	12,968	6,688	13,595	121,225
1944 . . .	41,627	27,532	19,927	13,870	6,597	14,341	123,894
1945 . . .	42,664	30,267	24,430	13,037	6,368	15,658	132,424
1946 . .	30,604	30,061	20,116	14,587	6,652	11,990	114,010
1947 . . .	12,076	19,760	16,385	13,794	7,045	17,731	86,791
1948 . . .	70,588	38,886	29,632	18,159	10,747	26,114	194,126
1949 . . .	78,975	41,155	29,408	21,027	12,283	27,373	210,221
1950 . . .	61,158	41,951	25,457	19,203	13,116	26,632	187,517

NOTE—I. Offences against the State, public tranquility, safety and justice.
II. Serious offences against the person.
III. Serious offences against the person or property or against property only.
IV. Minor offences against the person.
V. Minor offences against property.
VI. Other offences not specified above.
(a) Figures for 1941-45 for Hooghly district were not readily available.
(b) Figures for 1941-47 for Malda district were not readily available.
(c) Figures for 1941-46 for West Dinajpur district were not readily available.
(d) Figures for 1941-44 for Jalpaiguri district were not readily available.
(e) Figures of Cooch Behar for pre-merger period, *i.e.*, 1941-49 were not available.

Source :—The Department of Justice, West Bengal.

STATEMENT O.79

Civil cases, 1941-50

Number of suits instituted in West Bengal

Year	Money Suits	Rent Suits	Total of Cols. 2 and 3	Rent suits for enhancement of rent	Title and other suits
1	2	3	4	5	6
1941	31,178	132,624	163,802	10	17,875
1942	25,376	142,529	167,905	8	16,063
1943	25,158	169,604	194,762	3	18,657
1944	25,194	153,365	178,559	3	23,033
1945	21,349	126,302	147,651	17	25,665
1946	19,935	109,078	129,013	4	21,137
1947	21,372	96,536	117,908	7	22,585
1948	23,608	93,353	116,961	7	25,765
1949	25,491	87,613	113,104	4	30,443
1950	25,610	90,817	116,427	5	24,266

NOTE—(1) Since B. T. Act is not in operation in Darjeeling no figures for rent suits in that district were available. (2) Figures for pre-merger period, *i.e.*, 1941-49, regarding Cooch Behar were not available. (3) Figures for Calcutta include cases in High Court and Presidency Courts; rent suits in High Court include rent suits and title suits; and money suits in Presidency Courts include rent suits and commercial suits.

Source :—The Department of Justice, West Bengal.

CHAPTER I

GENERAL POPULATION

SECTION 1

PRELIMINARY REMARKS

The statistics principally discussed in this chapter are presented in Union Tables showing for districts and larger units area, houses and population (A I), variation in population since 1901 (A II), towns and villages classified by population (A III), variation in population since 1901 of urban areas classified by population (A IV); classification of livelihoods in towns arranged territorially (A V); and variations in density and summary of livelihoods in urban and rural areas of police stations and larger units (E). In State tables A I and A III matter similar to that in corresponding union tables is presented for police stations. In addition Subsidiary Tables printed in Part Ic of this Report show :

1.1 Area and population, actual and percentage, by density per square mile of police stations.
1.2 Variation and density of general population.
1.3 Mean decennial growth rates during three decades of general population.
1.4 Immigration into the State.
1.5 Emigration from the State.
1.6 Migration between the State and other parts of India.
1.7 Variation in natural population between 1931 and 1951.
1.8 Livelihood pattern of general population.

General Comparison with Other Areas

2. The population of West Bengal was 21,837,295 in 1941 and has now increased by 2,973,013 or 13·6 per cent. to 24,810,308. Statement I.1 below shows the area, density and population of the principal States in India. In the statements that follow Assam is counted without Manipur and Tripura, Bombay without Saurashtra and Cutch, Punjab without the other subsidiary States and Madras without Coorg.

STATEMENT I.1

Density, area and population of the principal states of India, 1951

State	Number of persons per square mile	Area in square miles	Population
Assam (1)	106	85,012	9,043,707
Bihar (9)	572	70,330	40,225,947
Bombay (5)	323	111,434	35,956,150
Madras (7)	446	127,790	57,016,002
Madhya Pradesh (2)	163	130,272	21,247,533
Mysore (4)	308	29,489	9,074,972
Punjab (6)	338	37,378	12,641,205
Orissa (3)	244	60,136	14,645,946
Uttar Pradesh (8)	557	113,409	63,215,742
West Bengal (10)	806	30,775	24,810,308
Travancore-Cochin (11)	1,015	9,144	9,280,425

3. Before the Partition of 1947, Bengal, Bihar, Uttar Pradesh, Punjab, Madras and Bombay used to be recognised as the principal provinces of India, but after it, the area of Bengal and Punjab having been reduced, a better comparison is obtained by taking into account several more states. In point of area West Bengal now comes ninth among the eleven states considered, of which Travancore-Cochin, the smallest, is about the size of Burdwan, Hooghly and Midnapur districts of West Bengal taken together. Mysore (29,489) is the only state comparable to West Bengal in size, whose population, however, is less than two-fifths of the latter. In point of population West Bengal comes fifth

among the eleven states. But in point of density or number of persons per square mile it comes second (806) only to Travancore-Cochin (1,015), but among the principal states of comparable size and population it has by far and away the highest density. If, further, the Sundarban forest area which is largely uninhabited reserved forests comprising a land and water area of about 1,630 square miles, is excluded, the density of the state increases to 851 persons per square mile, and if all the water-surfaces and beds of big and medium rivers were excluded, the density would increase still further to a little more than 875. This is about 125 persons per square mile more than the density in England and Wales, which, apart from Japan, is supposed to be the most thickly populated country in the world. The density of West Bengal is even greater than that of the Japan islands excluding Honshu.

4. It will be interesting to compare the mean decennial growth rates and the number of females per 1,000 males of the eleven states during 1941-51. Statement I.2 below shows the mean decennial growth rate and the number of females per 1,000 males in the eleven states.

STATEMENT I.2

Mean decennial growth rate 1941-51, and females per 1,000 males in the principal states of India, 1951

State	Mean decennial-growth rate 1941-51	Females per 1,000 males 1951
Assam	+17·4	879
Madhya Pradesh	+ 7·9	993
Orissa	+ 6·2	1,022
Mysore	+21·2	949
Bombay	+20·8	932
Punjab	−0·5	863
Madras	+13·4	1,006
Uttar Pradesh	+11·2	910
Bihar	+9·6	989
West Bengal	+12·7	859
Travancore-Cochin	+21·2	1,008

5. It will be seen that West Bengal suffers from a second distinction of having the smallest number of females per 1,000 males. This is due not only to the steadily dimnishing ratio of females to males in the natural population but also to the immigration of an increasing number of males from outside the state in search of employment and livelihood in the industrial areas.

6. The mean decennial growth rate of 12·7 during the decade is artificial. It has been calculated by including a considerable Displaced population, which immigrated into the state between 1946 and 1951, and whose number has been estimated at 2,099,071. If this figure were deducted from the total population of the state the resulting figure would be 24,810,308—2,099,071 or 22,711,237. This figure by no means represents the natural population of 1951, including as it does the balance of immigrants (immigrants less emigrants) from other states of India and elsewhere. An estimate of West Bengal's natural population in 1951 will be made later; suffice here to point out that, excluding the Displaced population alone and not reckoning the excess of immigrants over emigrants between the state and other states of India, the increase over 1941 has been to the extent of 22,711,237—21,837,295=873,942 only. The mean decennial growth rate will therefore be scarcely more than a fraction of one per cent. during 1941-51. The only other state which has had smaller growth rate than West Bengal is Punjab where the population was even more seriously disturbed owing to

unhappy occurrences before and after the Partition.

7. It will be interesting to make a few more comparisons which may throw light on trends that are peculiar to this State by contrast with others. Statement I.3 shows the average number of persons per household and the percentage of institutional inmates and houseless population to total population in the principal states.

STATEMENT I.3

Average number of persons per household, and percentage of institutional inmates and houseless population to total population, 1951

State	Number of persons per household	Percentage of institutional inmates and houseless population to total population
Assam	5·2	0·4
Madhya Pradesh	4·3	2·1
Orissa	4·6	0·8
Mysore	5·4	0·5
Bombay	5·0	1·1
Punjab	6·0	5·3
Madras	5·6	1·1
Uttar Pradesh	5·1	0·4
Bihar	..	..
West Bengal	4·9	3·1
Travancore-Cochin	5·6	0·9

8. West Bengal has a large population of institutional and houseless population compared to other states. This is explained by the large number of immigrants from other states. who leave their families at home, and work for their livelihoods here living in lodging houses, and also by a number of centres of Displaced persons where they lived in open sheds at the time of the count. The average strength of a household is smaller than in many states which indicates how the economic unit in the state is distintegrating faster than in others.

9. It is necessary to compare the proportion of urban populations to find out the pace of urbanization. Statement I.4 shows for the principal states the number per 1,000 of total population and the number of females per 1,000 males in cities and towns.

STATEMENT I.4

Number per 1,000 of total population, and the number of females per 1,000 males in cities and towns, 1951

State	Number per 1,000 of total population living in			Number of females per 1,000 males		
	Cities & towns	Cities	Towns	Cities & towns	Cities	Towns
Assam	46	..	46	683	..	683
Madhya Pradesh	135	32	103	925	887	936
Orissa	41	7	34	881	755	909
Mysore	240	130	110	916	912	922
Bombay	311	141	170	818	697	932
Punjab	190	51	139	809	802	811
Madras	196	87	109	989	949	1,010
Uttar Pradesh	136	75	61	796	784	838
Bihar	67	21	46	845	826	855
West Bengal	248	145	103	657	600	744
Travancore-Cochin	160	32	128	981	953	989

10. Bombay takes the lead in claiming a far greater proportion of urban population than any other state. The increase in the population of cities has been particularly rapid in Bombay owing to rapid industrialisation in that state during the last ten years but even there 141 persons out of every 1,000 live in cities while in West Bengal the corresponding figure is 145. West Bengal has the next highest urban ratio in her population. The greater proportion of the urban population in this state is concentrated in seven cities, the proportion being 145 out of every 248 townsmen, the remainder 103 being distributed over the remaining 107 towns. The only states besides West Bengal where more people live in cities than small towns are Mysore and Uttar Pradesh, both of which possess concentrations of small and big industries, universities and other seats of learning in their cities.

11. It is the non-agricultural livelihoods that indicate the extent of industrialisation and towns and cities thrive not if they are predominantly residential but to the extent they hum with industries, manufactures, commerce, transport and other services. It will, therefore, be interesting to compare among the principal states, the proportion of the population dependent on agricultural and non-agricultural livelihoods, and also the proportion among the total urban population in each state dependent on each of the four non-agricultural livelihoods of V Production other than Agriculture, VI Commerce, VII Transport and VIII Other Services and Miscellaneous Sources. Statement I.5 shows for the principal states, the production of the population dependent on non-agricultural livelihoods, the percentage of urban to total population and the percentage of each of the four non-agricultural livelihoods in the urban population.

STATEMENT I.5

Percentage of population dependent on non-agricultural livelihoods to total population, of urban population to total population and percentage distribution of non-agricultural livelihoods among urban population, 1951

State	Percentage of population dependent on Non-Agricultural livelihoods to total population	Percentage of urban population to total population in the State	Percentage distribution of non-agricultural livelihoods in urban population				Total Non-Agricultural livelihoods
			Non-Agricultural Production	Commerce	Transport	Other Sources	
1	2	3	4	5	6	7	8
Assam	26·7	4·6	16·5	27·6	7·2	42·2	93·5
Madhya Pradesh	24·0	13·5	27·8	19·0	7·5	29·1	84·3
Orissa	20·7	4·1	13·3	17·5	5·6	49·6	86·0
Mysore	30·1	24·0	28·6	17·9	4·2	35·9	86·6
Bombay	38·5	31·1	28·9	19·2	5·2	31·2	84·5
Punjab	35·5	19·0	12·0	29·0	4·0	45·0	90·0
Madras	35·1	19·6	24·0	19·0	6·0	34·0	83·0
Uttar Pradesh	25·8	13·6	24·9	21·9	6·2	34·6	87·6
Bihar	14·0	6·7	..	..	..	..	77·0
West Bengal	42·8	24·8	28·7	24·2	9·3	33·6	95·8
Travancore-Cochin	45·2	16·0	24·7	14·9	6·6	29·0	75·2

12. West Bengal has the highest percentage of its total population dependent on non-agricultural livelihoods, as well as the highest percentage for these livelihoods in its urban population. In common with several states the greater proportion of its urban population is employed in services, industries

and manufacture; but commerce and shopkeeping also enjoy a prominent position.

13. Literacy is an index of progress throughout the world, and it is unfortunate that it is not a flattering index so far as India goes. Within India literacy is not uniform, and, what is still more disconcerting, it varies between very considerable limits even between neighbouring districts in the state. Such being the position it is worth while to take stock of literacy in West Bengal compared to other states and the following Statement I.6 shows percentage of literacy by totals, males and females, subdivided into rural and urban areas.

STATEMENT I.6

Percentage of literates to total population, 1951

State	Percentage of literates to total population								
	General Population			Rural Population			Urban Population		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Assam	18·1	27·1	7·8	16·5	25·4	6·6	50·3	58·8	37·8
Madhya Pradesh	13·5	21·9	5·0	9·9	17·3	2·6	36·1	49·7	21·3
Orissa	15·8	27·3	4·5	14·9	26·2	3·9	37·5	51·7	21·4
Mysore	20·6	30·4	10·3	14·5	23·8	4·9	39·7	50·6	27·8
Bombay	24·1	34·9	12·6	16·9	26·6	6·9	40·6	52·0	26·7
Punjab	16·5	22·5	9·5	12·0	17·5	5·8	35·6	43·3	26·1
Madras	19·3	28·5	10·1	15·4	23·9	6·9	35·4	47·1	23·4
Uttar Pradesh	10·8	17·4	3·6	7·8	13·6	1·5	30·0	40·1	17·6
Bihar	11·9	19·9	3·8	10·2	16·6	3·3	29·2	40·8	15·1
West Bengal	24·5	34·7	12·7	17·7	28·1	6·7	45·2	51·8	35·1
Travancore-Cochin	45·8	54·8	37·0	44·8	53·8	36·0	51·3	60·0	42·4

14. Travancore-Cochin holds by far and away the best record for literacy followed almost half way behind by West Bengal and Bombay. It is striking that the two latter states enjoy almost the same percentages for total, males and females in their general and rural populations but in the urban population West Bengal holds a slightly better record among females which improves its overall urban percentage.

15. Before concluding this general comparison among the principal states it will be interesting to make a note of the sudden and unprepared accession of population each state has had by way of Displaced persons from Pakistan consequent on the Partition of India in 1947. In every state where this population is found in any number, it is both a source of strength and a major problem: it is a source of strength inasmuch as all human material is of the utmost value. It is a major problem in that the sudden accession of a large population, must have put a severe stress and strain on the resources of at least several states, where influx was heavy. It should always be remembered in this connexion that even before the Partition there was hardly a state which was not precariously balanced between population and sustenance, where the slightest disturbance in its even tenor of life did not threaten to throw it out of plumb. Statement I.7, showing briefly the influx of Displaced persons from both East and West Pakistan up to 1 March 1951, illustrates how each principal state of India is sharing the new burden which is a long way yet from being converted into joyful assets.

DISPLACED POPULATION IN DIFFERENT STATES

STATEMENT I.7

Total population, displaced population, and percentage of displaced population to the non-displaced population of the principal states, 1951

State	Total Population	Non-Displaced Population	Displaced Population	Percentage of Displaced Population to Non-Displaced Population of the State, 1951
Assam	9,043,707	8,769,252	274,455	3·13
Madhya Pradesh	21,247,533	21,134,762	112,771	0·53
Orissa	14,645,946	14,625,907	20,039	0·14
Mysore	9,074,972	9,067,779	7,193	0·08
Bombay	35,956,150	35,618,054	338,096	0·95
Punjab	12,641,205	9,409,224	3,231,981	34·35
Madras	57,016,002	57,007,073	8,929	0·02
Uttar Pradesh	63,215,742	62,735,472	480,270	0·77
Bihar	40,225,947	40,148,395	77,552	0·19
West Bengal	24,810,308	22,711,237	2,099,071	9·24
Travancore-Cochin	9,280,425	9,280,118	307	0·003

16. West Bengal enjoys an unenviable prominence in this statement exceeded only by Punjab. The effect of this influx, amounting to fifty years' normal growth of the state packed over again into the crowded space of five years, has been one of painful "swarming"; in certain areas it has increased the density per square mile by several thousands, in others by several hundreds, and over West Bengal as a whole by 68. There will be many occasions to return to this particular problem again and again in this book, but it is necessary at the outset to appreciate West Bengal's share of this burden in comparison with other states.

SECTION 2

GENERAL DISTRIBUTION AND DENSITY

General Distribution

Size of districts in West Bengal and other states

17. Statement I.8 shows the most and the least populous districts and the average population of a district, and Statement I.9 shows the largest and the smallest districts and the average area of a district, in each of the main states in the Union.

STATEMENT I.8

Most populous, least populous districts and average population of districts in each of the main states of India, 1951

State	Most Populous District		Least Populous District		Average Population of district
	Name	Population	Name	Population	
West Bengal	24-Parganas	4,609,309	Darjeeling	445,260	1,654,021
Bihar	Darbhanga	3,769,534	Dhanbad	731,700	2,234,775
Madras	Salem	3,371,769	Nilgiris	311,729	2,192,923
Travancore-Cochin	Quilon	3,026,822	Kottayam	1,783,771	2,320,106
Bombay	Greater-Bombay	2,839,270	Dangs	47,282	1,284,148
Orissa	Cuttack	2,529,244	Phulbani	456,895	1,126,611
Uttar Pradesh	Basti	2,387,603	Naini Tal	335,414	1,239,524
Madhya Pradesh	Bilaspur	1,679,637	Betul	451,655	965,797
Assam	Kamrup	1,490,392	Tirap	5,213	531,983
Punjab	Amritsar	1,367,040	Simla	46,150	972,400
Mysore	Bangalore	2,127,061	Chickmaglur	417,538	1,008,330

STATEMENT I.9

The largest, smallest districts and average size of districts in each of the main states of India, 1951

State	Largest District (Sq. miles)		Smallest District (Sq. miles)		Average area of district in square miles
Madhya Pradesh	Bastar	15,091	Wardha	2,429	5,921
Punjab	Kangra	9,945	Simla	8	2,875
Orissa	Koraput	9,875	Balasore	2,462	4,626
Assam	Lushai Hills	8,149	Nowgong	1,852	5,001
Madras	Nellore	7,942	Madras	30	4,915
Bihar	Ranchi	7,159	Patna	2,164	3,907
Bombay	Bijapur	6,601	Bombay	211	3,980
Uttar Pradesh	Garhwal	5,629	Rampur	900	2,224
West Bengal	24-Parganas	5,293	Calcutta	32	2,052
Mysore	Chitaldrag	4,190	Mandya	1,917	3,277
Travancore-Cochin	Kottayam	2,954	Trivandrum	1,492	2,286

18. West Bengal heads the list for the most populous district in any state, and also for the most thickly populated (Calcutta with a density of about 79,000 per square mile), but is far behind many States in respect of the least populous district. Among eleven states it holds the ninth place for the largeness of size of district and comes last but one in average size of district. These statements, therefore, provide some idea of the extent of crowding in this state as compared with the other principal ones. Another point to note is that whereas in West Bengal the district of 24-Parganas combines the largest population with the largest area, in no other state does the same district combine both features and yet this district of 24-Parganas would be regarded as a moderately-sized district in seven other states.

Size of districts in West Bengal

19. Statement I.10 arranges the districts of the state in order of their population in 1951 and compares them with their populations in 1941 and backwards to 1901.

STATEMENT I.10

Population of districts in West Bengal, 1901-51

District	Population in 1951	Population in 1941	Population in 1931	Population in 1921	Population in 1911	Population in 1901
24-Parganas	4,609,309	3,669,490	2,888,694	2,636,710	2,478,335	2,155,981
Midnapur	3,359,022	3,190,647	2,799,093	2,666,660	2,821,201	2,789,114
Calcutta	2,548,677	2,108,891	1,140,862	1,031,697	998,012	920,933
Burdwan	2,191,667	1,890,732	1,575,699	1,434,771	1,533,874	1,528,290
Murshidabad	1,715,759	1,640,530	1,370,677	1,224,181	1,345,073	1,322,486
Howrah	1,611,373	1,490,304	1,098,867	997,403	943,502	850,514
Hooghly	1,554,320	1,377,729	1,114,255	1,080,142	1,090,097	1,049,041
Bankura	1,319,259	1,289,640	1,111,721	1,019,941	1,138,670	1,116,411
Nadia	1,144,924	840,303	721,907	711,706	775,986	773,202
Birbhum	1,066,889	1,048,317	947,554	851,725	940,162	906,891
Madla	937,580	844,315	720,440	686,174	698,547	603,649
Jalpaiguri	914,538	845,702	739,160	694,056	661,282	544,906
West Dinajpur	720,573	583,484	523,977	490,434	509,557	456,501
Cooch Behar	671,158	640,842	590,886	592,489	592,952	566,974
Darjeeling	445,260	376,369	319,635	282,748	265,550	249,117

20. While the above statement gives a general idea of at what rate the population of each district is increasing, and how 24-Parganas and Calcutta, particularly, have more than doubled their population in the course of the last fifty years, it will give us a readier means of appreciating how rapidly particular areas are growing if the districts are arranged in the order of their areas and the growth at each decade is denoted as a percentage of the population ten years before. Statement I.11, therefore, arranges the districts in the order of their areas and shows the percentage of growth in each decade between 1901 and 1951.

STATEMENT I.11

Size of districts and percentage of growth of population in each decade between 1901 and 1951

State and District	Area in square miles as given by Surveyor General, India	Percentage of growth : Increase +, Decrease —					
		1901-51	1941-51	1931-41	1921-31	1911-21	1901-11
West Bengal	**30,775**	**+ 56·7**	**+13·6**	**+23·6**	**+ 7·7**	**— 2·3**	**+ 6·1**
24-Parganas	5,293	+113·8	+25·6	+27·0	+ 9·6	+ 6·4	+15·0
Midnapur	5,258	+ 20·4	+ 5·3	+14·0	+ 5·0	— 5·5	+ 1·2
Burdwan	2,716	+ 43·4	+15·9	+20·0	+ 9·8	— 6·5	+ 0·4
Bankura	2,658	+ 18·2	+ 2·3	+16·0	+ 9·0	—10·4	+ 2·0
Jalpaiguri	2,378	+ 67·8	+ 8·1	+14·4	+ 6·5	+ 5·0	+21·4
Murshidabad	2,095	+ 29·7	+ 4·6	+19·7	+12·0	— 9·0	+ 1·7
Birbhum	1,754	+ 17·6	+ 1·8	+10·6	+11·3	— 9·4	+ 3·7
Nadia	1,527	+ 48·1	+36·3	+16·4	+ 1·4	— 8·3	+ 0·4
Malda	1,408	+ 55·3	+11·0	+17·2	+ 5·0	— 1·8	+15·7
West Dinajpur	1,385	+ 57·8	+23·5	+11·4	+ 6·8	— 3·8	+11·6
Cooch Behar	1,334	+ 18·4	+ 4·7	+ 8·5	— 0·3	— 0·1	+ 4·6
Hooghly	1,209	+ 48·2	+12·8	+23·6	+ 3·2	— 0·9	+ 3·9
Darjeeling	1,160	+ 78·7	+18·3	+17·7	+13·0	+ 6·5	+ 6·6
Howrah	568	+ 89·5	+ 8·1	+35·6	+10·2	+ 5·7	+10·9
Calcutta	32	+176·7	+20·9	+84·9	+10·6	+ 3·4	+ 8·4

21. It will be seen that the population of only 24-Parganas and Calcutta have more than doubled in the course of the last fifty years; the populations of Jalpaiguri, Malda, West Dinajpur, Darjeeling and Howrah have grown more than half as much again during half a century; the populations of Burdwan, Murshidabad, Nadia, and Hooghly have increased between a quarter and a half of their population of 1901 during the same period, while in Midnapur, Bankura, Birbhum and Cooch Behar the population has grown by less than a quarter of what it was in 1901.

22. The population has therefore not grown according to space available but according to where it can find the means of sustenance. It has largely neglected the districts of Midnapur, Bankura, Murshidabad, Birbhum and Cooch Behar which are some of the biggest in area and is concentrated in comparatively small districts like Malda, West Dinajpur, Darjeeling, Howrah, Nadia, Hooghly and Calcutta. Even when it has increased beyond the average in big districts like 24-Parganas, Burdwan and Jalpaiguri,—the last two of which although considered big in West Bengal are less than average size in all other states except Travancore-Cochin and Uttar Pradesh,—it has not done so uniformly over their entire area, but in selected small localities, which are roughly about 80 square miles in 24-Parganas, 400 square miles in Burdwan, and 1,200 square miles in Jalpaiguri. If these areas, and the populations in them, were excluded it would be found that the increase has been inconsiderable, and hardly anywhere very much more than one per cent. per annum on the 1901 population.

It is only in Malda and West Dinajpur that open spaces and the prospect or actual availability of agricultural land seem to have invited immigrants and growth at the rate of more than one per cent. per annum over half a century; but in Midnapur, Bankura, Murshidabad, Birbhum and Cooch Behar either all available agricultural land has already been employed to capacity, or is not inviting enough to natural growth or immigrants. Even in districts where population has grown more than one per cent. per annum, the growth has been due more to immigration than natural growth. It therefore follows that over the half-century natural growth everywhere has been less than one per cent. per annum, immigration being a complementary and rather important factor which has been responsible for putting it above the one per cent. per annum mark. This is true in the case of 24-Parganas, Calcutta, Jalpaiguri, Darjeeling, Howrah, Burdwan, Nadia and Hooghly, all of which, except Nadia, possess areas of industry or plantations into which immigrants have steadily poured, neglecting the agricultural parts. Nadia alone among this group has earned a fortuitous and purely transient distinction in 1951, owing to its having had the largest concentration of Displaced persons from East Bengal. If the Displaced population were excluded, Nadia, as will be shown later, will be found to have suffered from a declining population.

23. The general distribution of population has thus been far from uniform. But it has had one striking and uniform trend: wherever a new prospect of livelihood and sustenace has appeared that area has rapidly filled up, no matter whether the sustenace has been from industry or agriculture. On the other hand, wherever no new industry has grown up or agriculture has attained a static stage, and marginal land does not invite cultivation owing to the outlay for opening it up and making it culturable being much in excess of the value of the crop expected, population has tended to stagnate, neither growing enough naturally nor attracting immigrants. There will be occasion to elaborate this conclusion in the account of density and growth, but before that

is done, it is necessary to assess how far accuracy of the census count has improved over the counts of previous decades.

24. As will be discussed presently the 1941 census was unsatisfactory in many ways and although Authority did its best to weed out chances of incorrect or inflated enumeration its efforts cannot be said to have entirely succeeded. It will seem fairly obvious that the two major communities, Muslim and Hindu, especially in urban and suburban areas, vied with each other in inflating their strength, and as will be seen from an analysis of age, they seemed to have proceeded with considerable ingenuity on account of which it was difficult to put one's finger on any particular spot, or section of the household, or an age group, as harbouring the plague. Detection therefore was rendered difficult for both the officer on the spot engaged in checking during the actual count as well as the tabulation offices. Clearly, a tabulation office could not throw away enumeration slips merely on suspicion unless it was established that one and the same person had been entered several times over. The ten-day count in 1941 facilitated bogus entries all the better, because the absence of any suspected case during an inspecting officer's checking round could be explained away by the suspect's temporary absence on a two-day visit to a relation several miles away. The writer recalls how as an Assistant Magistrate in 1941 he was assigned areas in Kushtia subdivision, then in Nadia district, and how he never could really pin down a specific case of multiple enumeration or bogus entry although he had plenty of reason to suspect foul play in both Hindu and Muslim houses. The census count of 1941 presents many points otherwise difficult to explain except by presuming multiple enumeration or bogus entries. In any census of a total count, where every individual has to be accounted for in a schedule or a slip, an overall over-enumeration of the population is a very rare event, under-enumeration being the general rule. It is, therefore, difficult to assume that over-enumeration in 1941 was the result of chance: even chance seldom overrides the limits of probability.

In 1931, the Census Superintendent discussed two sources of error in the total count: (*a*) the "civil disobedience" movement in his Introduction at page xiv of his Report, and (*b*) "communal feeling" at page 384 in Chapter XI of the same Report. As for the first, he had the following observation to make: 'For many years previously Government had been subjected to a campaign of misrepresentation the object of which was to bring Government under contempt and suspicion, and there is no doubt that the prestige of Government officers had suffered thereby. Moreover the census operations took place at a time of "civil disobedience" and obstruction to the census was a plank in the Congress platform. Civil disobedience and the diminished prestige of Government, however, are not likely to have affected the results to any considerable extent.' As for the second source of error, he observed as follows: 'The census was taken at the end of a decade in which communal feeling had been more bitter between Hindus and Muslims than for many years previously and at a time when no member of either of these communities could fail to be alive to the importance in Bengal of the numerical strength of his co-religionists in view of the impending constitutional changes and the question of communal electorates. Numerous allegations were made on both sides during the process of enumeration that enumerators of one community were suppressing details of persons of the other community and fictitiously increasing the numbers of their own. Most of these allegations were not supported by specific details and were consequently incapable of investigation. But in such cases as fell under examination by the local census officers no ground was found in any case for the allegations made.' The Superintendent does not proceed to assess the extent of error that may have resulted from the two sources: the Congress largely representing the Hindu community having launched a civil disobedience movement and expressed its intention to have nothing to do with the census; and self-interest, partially inhibited by the Congress directive, yet acting in view of the impending political and electoral reforms among Hindus, and working uninhibited among the non-Hindu sections of the populace. In spite of the failure to assess the possible extent of error in Bengal, the differential growth rates over several decades among the two major communities seem to insinuate the possibility of error in 1931. The Census Superintendent of the Punjab in 1931—the Punjab and Bengal always seemed to react in the same way to communal questions—drew the following conclusion on this question: "Having given the matter my careful consideration, I estimate that the effect of the artificial swelling of figures has resulted in a (net) error representing not more than one per cent. of the total population" (Report for the Punjab, 1931, page 80). An error of one per cent. of the population, -which, to judge by other observations immediately preceding the conclusion, was perhaps an over-estimate,—is considerable; but in Bengal or for that matter in any province in India, population trends are so uncertain and erratic, and up to 1921, seemed to have varied so much with famines or the availability of food supplies, that it is hazardous to project an observable trend, even if it were steady and uniform over several decades before, to the next decade or two to estimate possible error. At any rate, such projections, apparently fortuitous if they agree and with nothing for it if they do not, do not firmly strengthen a statement, but at best underline its plausibility.

The Census Superintendent of 1921 for Bengal mentioned the "Non-Co-operation" movement which threatened to boycott the census. In his Administrative Report, the Superintendent for 1921 has recorded the following remarks: 'The attitude of the general public towards the census was one of indifference except when the records of caste aroused excitement. There was in general no obstruction and little provocation offered to enumerators except by a few Marwaris and others who held the opinions of Non-Cooperators in Calcutta..... Although followers of the Non-Cooperation movement did not, even before the pronouncement of Mr. Gandhi in favour of cooperation with the census, go to the extent of refusing to give information regarding themselves and their families and the movement therefore did not in any way vitiate the proceedings of enumerators. there is no doubt that it prompted many who had been selected as supervisors and enumerators to discontent at their appointment, specially in towns. In almost every district there were enumerators whose refusal or objection to serve is traceable to Non-Cooperation. Some said so openly, but the large majority took refuge in excuses. A burst of activity in the movement coming after the enumerators had been appointed caused some slight dislocation in the preparations especially in places where it had been intended to employ students, *e.g.*, in Krishnagar and in Calcutta.... One District Census Officer reports that amusement expressed the attitude of individuals towards the census in some parts, and they got it in attempting to avoid being counted or to be counted more than once, giving foolish answers to questions, etc. This was in Bankura.' (Administrative Report, Vol. V, Part III, 1921, pages 28-29.) Mention of this movement affecting the census is to be found in the writings of Mahatma Gandhi, Dr. Rajendra Prasad, and Sri Jawaharlal Nehru, and it is likely that the movement affected in a small way the census count. As a small but amusing instance of how sensitive the administration must have been to this movement may be mentioned the omission in 1921 of manufacture of tobacco altogether from the economic classification, not to speak of *biri*-making ; then even as now an important occupation, to avoid,—for this conclusion seems irresistible,—the admission that *biri* had in any way jeopardised the import of foreign tobacco and cigarettes. Then again, the Influenza epidemic of 1918-19 was quite severe and may have contributed to under-enumeration.

25. The most recent census regarding which the Superintendent of its operations does not mention any political, communal or social factor as tending to warp its accuracy appears to have been that of 1911. This was taken in a particularly tranquil period undisturbed by any kind of turmoil or motive except insofar as indifference may have played its part. This is not to detract from the value of the censuses of 1921 to 1941 but merely to state the circumstances which might have led to error in those years. In 1911 no such extraneous source of error is mentioned. Success that year therefore lay in the perfection of the census organisation, and, it was in this decade that the prestige of the administration was at its highest. There was also a large measure of public co-operation, the Government having recently acquired a certain amount of merit for its ability to recognise facts and to admit a mistake by annulling the Partition of Bengal which it had, earlier in the decade, pursued with so strange a determination. The circumstances in which the census in 1951 was taken have already been related in the Preface and the Administrative Report on Enumeration in 1951 (Administrative Report, Census of West Bengal, 1951: Enumeration, pp. 1—15), from which it will appear that times and the general mood could not have been more propitious for the taking of a sober, correct, and unbiassed census. The only disturbing factor was the decision to deny electoral rights to certain categories of Displaced persons, but this cannot have affected the total count: it may at best have affected the dates of immigration into West Bengal of the Displaced community. In the next place, however small the remuneration, it was paid for the first time to every enumerator, who cared to accept it, and this must have substantially, improved the quality of the count. The contraction in the area of the state made for better supervision, and more government officials were available for every union in the state than ever before: that is to say, the ground staff of government employees was far more numerous in 1951 than formerly, so that at very short notice a government servant could be rushed to the breach and the gap repaired as soon as it gave cause for alarm. The only drawback in an otherwise perfectly satisfactory organisation was, as has already been discussed in the Administrative Report, the extended twentythree-day period of enumeration and the work of the writing up of the National Register of Citizens. The period was perhaps a trifle too long and the writing of the National Register of Citizens, although it did not affect the total count, may have affected the quality of the writing of the Register itself. The three-day revisionary round helped immensely in clinching doubtful cases of absence, but the twenty-day period of preliminary count perhaps contributed to some extent to whatever understatement of the population that occurred. In other respects, circumstances were as propitious as could be desired. The Census Commissioner of 1941 was in the habit of saying often that it takes two to make a census: the enumerator and the people. Whereas in 1941 both suffered from an unsavoury zest; in 1931 the people was by sections over-enthusiastic, indifferent or

even hostile; and in 1921 neither was enthused by a desire to make the census a success; in 1951 there was no dearth of interest of the right kind, and every spokesman of the people and the census agency wanted to make the count a fact finding mission, to forge a powerful weapon for the Planning Commission and the Government. There was never an instance of conscious dereliction of duty.

It will be useful to discuss the distribution of the population in census houses containing households and institutions, and define villages and towns, before proceeding to discussions on density and growth.

Definition of the Census House

26. Up to 1881 the house for census purposes was the structural unit. As the Bengal Report of 1921 rightly pointed out (Report, page 93) there are two words in the vernacular with a widely different significance, which can be used as translations of the English "house". One is *bari* which is more properly rendered into English as homestead, and the other is *ghar* which means hut (or room). The *bari* consists of a number of huts built on raised plinths round a courtyard (*Uthan*) itself well above the level of the fields, and the term includes not only the huts but the courtyard, out-houses, and the raised land outside which is commonly planted with fruit and other trees and shuts the actual habitation almost completely from view. The *bari* ordinarily contains a hut on each of the four sides of the courtyard, two huts being living rooms, one a cookshed and dining room and one a *baitakkhana* or sitting room where visitors are received and the men sit and smoke. Cowsheds are sometimes built on the courtyard but are more often outside the circle of the other huts. The *bari* is a perfectly definite unit but is not suitable for census purposes, for it frequently happens that as a family multiplies the *bari* is enlarged so that it accommodates several families closely related to one another but each drawing against a separate domestic budget. Very commonly the co-sharers of a holding each with a family have partitioned the cultivated land between them, but have kept the *bari* their joint property. In other cases where brothers have been unable to live amicably in the family homestead, one or another has made himself a separate *bari* on a convenient piece of the family property which has fallen to his share. For census purposes statistics are required of the separate family units. In 1881 the recognition of this need led to a tortuous and unsatisfactory definition of a *census house* as follows:

"The accepted definition of a house in Bengal is as follows, *viz.*, '*the several buildings or rooms which go to make up the homestead, whether inhabited by one or more families*', and this definition must be kept steadily in view, or great confusion must ensue. Thus the Englishman's bungalow, with its servants' houses in the same compound, will be numbered as one house, so will a *sarai* with its separate rooms for different families of travellers, and so will the single hut which holds the artisan's family. One important exception, however, must be made to this general rule. and that is in the case of large lodging-houses and similar buildings in towns, where several families having no connexion with each other reside. In taking the Calcutta census of 1876 Mr. Beverley found that in each of so many as 6,262 houses more than three families were residing. To enter each of these buildings as one house would be obviously misleading, and the best way out of the difficulty in the case of buildings occupied by two or more totally unconnected families will be to number as a separate house each room, or set of rooms, inhabited by each family." (Census of Bengal 1881, Vol. I, para. 94, page 35.)

27. The Superintendent for 1891 was of the opinion that the definition of 1881

contained a term nearly as indefinite as *house* itself, *viz.*, the word *family* (Census of the Lower Provinces of Bengal and Their Feudatories: Report. paragraph 8, page 3). He, therefore, finally struck on this definition which came to be accepted in all subsequent censuses: 'A house consists of the buildings, one or many, inhabited by one family; that is, by a number of persons living and eating together in one mess with their resident dependants, such as mother, widowed sisters, younger brothers, etc., and their servants who reside in the house.' In fact, notes the Superintendent, for the vague term family there was substituted the true or commensal family with its resident dependants (Report 1891, page 4). Thus in 1872 and 1881, a house was roughly defined as the dwelling place of one or more families having a separate independent entrance from the common way. But in Bengal, as this definition was open to several objections, from the point of view of the actual enumeration, it was abandoned in 1891 when a house was defined as the residence of a commensal family. The same definition was repeated in 1901 and onwards up to 1941 (Census Reports of Bengal: 1901, page 26; 1911, page 48; 1921, page 93; 1931, page 56; 1941 Administrative Report). In 1931 the definition was made more explicit: "In other words, the unit is the commensal family, and not the homestead or enclosure (compare paragraph 127, page 48 of the 1911 Report—A.M.). Houses, however, at a distance from each other and entirely separate, though belonging to the same commensal family, should be treated as separate. Ordinarily the unit will correspond to the unit commonly adopted for the chaukidari tax." (Report for Bengal, 1931, page 57). This incorporates the explanation recorded at pages 48 of the 1911 and 93 of the 1921 Bengal Reports. The 1941 definition made no departure from that of 1931.

28. For 1951 the Registrar General decided upon the following definition of a census house: *A census house* is a social unit. *A social unit is every dwelling with a separate main entrance.* This was found difficult to apply in the acute conditions of overcrowding in West Bengal. It was therefore amended as follows: "A census house is a dwelling or part of a dwelling with a separate main entrance where a social unit, that is, household, lives. A household means a number of persons living and eating together in one mess with resident dependants including servants." Like all half-hearted compromises this had to be abandoned for another, perhaps a little more satisfactory, but not wholly so. The census house was defined as the buildings or building or part of a building, a suite of rooms or even a room in which one commensal family lived as a unit. The reference to the homestead or enclosure, or the Registrar General's stipulation of a "separate main entrance" was abandoned. The census house was to be numbered according to the following instruction: "Where a premise bearing a single number contains several units, each of which is a census house, he (the enumerator or house numberer) will use sub-numbers. Thus, supposing a building bears the number 20 and contains three census houses (meaning commensal family units—A.M.), he (the enumerator) will number those parts of the building which fall within the definition of a census house, *e.g.*, $\substack{20\\1}$, $\substack{20\\2}$, $\substack{20\\3}$, in each case putting the sub-number beneath the house number. Houses in cooly lines, tenements in railway colonies and city bustees such as those found in Howrah and Calcutta will receive separate numbers for each census house. In police lines, jails, hospitals, asylums, etc., and in hotels, *sarais*, and residential clubs, each room or suite allotted to a different traveller or guest will be treated as a separate census house and receive a separate

number. In boarding schools, separate hostels will be numbered as separate houses." It will be noticed that already the census house was identified with the commensal family unit. It was now further reduced in space to the minimum of a room, whether or no other amenities went with it. But even this minimum of a room for a census house baffled the housenumberer's wits in transit camps for Displaced persons and in cities when he came up against cases where one room with four walls was shared by more than one commensal family unit. As these cases were by no means few, the definition of the census house had to rest on the rock bottom of one room, even if it contained two or more families. So in 1951, on account of the extreme congestion in urban areas, the *census house* practically lost all uniformity of definition in West Bengal and a better and more reliable figure for comparison with previous censuses was provided by the number of households in a town, a village, a police-station or a district. Occupied (census) houses in the tables and what follows here refer to anything from a room to a *bari*, as described in 1921, so far as the structural layout is concerned but they invariably mean, except where the number of commensal units exceeds the number of occupied census houses, a unit covering on the one hand a commensal family and on the other, in the case of institutions, the separate existence of an individual. The census house has, thus, had a flexible application, especially in Calcutta but outside of this city and the industrial cities and towns of 24-Parganas, Howrah and Hooghly, the definition of a house hold living in a dwelling with a separate main entrance generally held good.

29. To sum up, the return of houses in Europe is of great importance as it throws light on the question of overcrowding. But in West Bengal, except in a few large cities, the statistics have no bearing on this subject. The unit is social, not structural, and while in many cases a census house may comprise several distinct buildings, in others one building may be divided into several 'houses'.

30. At the same time the figures have a certain value of their own and are quite useful for comparison with previous censuses to assess (i) the size of the commensal family through several decades, and (ii) the state of the joint family in the state. As the definition of the census house, boiling down to the commensal family with a separate kitchen or cooking arrangement, has been uniform since 1891, both can be studied over the sixty-year period.

31. As to the extent of overcrowding to which the definition adopted for the state does not furnish much clue we have had two enquiries in recent years in Calcutta and Howrah. One was made in 1946 by the Central Government in Bengal and the other by the State Government in Calcutta and Howrah in 1948-49. Even these are now out-of-date under-statements, having been conducted before new heights of overcrowding were reached in 1950 after the great waves of immigration from East Bengal. Overcrowding in Calcutta and surrounding cities will be discussed in the Report for Calcutta but suffice here to say that the number of living rooms (as distinct from houses or flats) in the city of Calcutta were counted in the last census and was found to be 710,579, while the population was 2,548,677 giving 3·6 persons to one living room.

32. In the Inquiry conducted by the Central Government in 1946 it was revealed that even in one-roomed houses in Calcutta 50 per cent. of the families were of a size between 4 and 5 persons and another 50 per cent. of a size between 6 and 7 persons. In two-roomed, three-roomed, four-roomed and bigger houses, the percentage of families of six or more persons were respectively 58·7, 63·6, 88·2, and 70·0. A better insight

into the degree of overcrowding is given by the distribution of families by number of persons per room in Statement I.12 below:

STATEMENT I.12

Distribution of families by number of persons per room

Number of persons per room	1—2	2—3	3—4	Total
Number of families	37	50	18	105
Percentage of families	35·2	47·6	17·2	100

It shows that a little less than 50 per cent. of the families live two or three persons to a room. This distribution however disregards the different requirements of young and old and those of differently related persons. This may be roughly taken into account by expressing the number of persons in the family in terms of equivalent adult males. Although an unsatisfactory mode of conversion, it provides a better index of overcrowding in Statement I.13.

STATEMENT I.13

Distribution of families by number of adult male equivalents per room

Number of equivalent adult males per room	1—2	2—3	Total
Number of familes	87	18	105
Percentage of familes	82·8	17·2	100·0

33. The average floor space per person in rented houses was found to vary between 43 and 55 sq. feet for the income groups (i) Below Rs. 100 and (ii) Rs. 300 per month, and rose to 69 sq. ft. per person for income groups above Rs. 300.

34. The State Government's inquiry conducted in 1948-49 and published in 1949 in a *Report on a Sample Enquiry into the Living Conditions in the Bustees of Calcutta and Howrah 1948-49* indicates an intensification of overcrowding in the City and Howrah since 1946. The following contains a summary of certain aspects of the Report.

The following extract from page 13 of the Report gives a horrifying summary of results of the Inquiry:

> About 11·3 per cent. of the total bustees of Calcutta and 12 per cent. of those of Howrah have been surveyed. Only 12 per cent. of the resident families in the bustees of Calcutta are lessees and the rest are tenants; 24·6 per cent. of the total lessees do not live in the bustee. At Howrah the respective percentages are 12·3 and 11·5. The majority of the tenements are one-roomed, the percentage for Calcutta being 93·3 and that for Howrah 97·6. Only 31·2 per cent. of the lessees at Calcutta bustees have registered documents in support of their claims, the figure for Howrah is slightly higher, being 40. No case of eviction of lessees was found at Howrah but the lessees at Calcutta are not so fortunate, 3 per cent. have been already evicted and slightly more than 5 per cent. have been threatened with eviction notices, etc. Among the tenants of the bustees of Calcutta 32 per cent. are non-Bengalees while 16·6 per cent. come from East Bengal. But at Howrah 80·2 per cent. of the tenants of the bustees are non-Bengalees and only 1·2 per cent. hail from East Bengal. On an average, a lessee of a Calcutta bustee enjoys 62·5 per cent. and a tenant enjoys 26·6 per cent. more floor space than those of a Howrah bustee. The average monthly income of a lessee of Calcutta is more than double that of a lessee of Howrah and the average income of a tenant of Calcutta is nearly one and half times as much as that of a tenant of Howrah; 75 per cent. of the huts of the bustees of Calcutta have pucca floor whereas the figure for Howrah is only 36·6 per cent. As has already been commented upon, pucca walled huts have been found in the bustees, the percentages for Calcutta and Howrah being 28 and 9, respectively. Thatched roof was found in only 3 per cent. cases both at Calcutta and at Howrah. As regards ventilation it appears that the bustees of Howrah are better off than those of Calcutta as is apparent from the percentage of badly ventilated huts, which is

> 24 for Calcutta and 6 for Howrah. Arrangement for water supply is bad in both the cases; 61·7 per cent. of the huts of Calcutta bustees and 83·6 per cent. of those of Howrah have no arrangement for supply of water; 15 per cent. of the huts have kitchens both at Calcutta and at Howrah, but the percentage for huts having no arrangements for cooking is 4 at Calcutta while the corresponding percentage for Howrah is 10. Drainage is equally unsatisfactory at the two places, the percentage of bad drainage for Calcutta bustees is 42 while that for Howrah is 34; 17·3 per cent. of the huts of the bustees of Calcutta and 15·5 per cent. of those of Howrah have no latrines.

The following from page 14 of the Report gives the distribution of the number of rooms occupied by lessees and tenants at Calcutta and Howrah:

> It will be seen from the table that at Calcutta, a tenant family occupies on an average 1·10 rooms only, 92·3 per cent. of them occupying only a single room, whereas a lessee family lives in 2·73 rooms on an average, nearly 75 per cent. of them occupying more than two rooms. As a hut contains on an average 7·16 rooms, it is evident that the hut owner lets out the balance of 5·43 rooms which are occupied by 5 tenant families. A bustee at Calcutta has, on an average, 6·38 huts having 52·12 rooms where 35·3 tenant families and 4·8 lessee families live. At Howrah a tenant family occupies 1·03 rooms on an average, 97·6 per cent. of them living in a single room. A lessee family on the other hand lives in 2·43 rooms on an average, 70·5 per cent. of them occupying more than 2 rooms. As a hut contains 8·73 rooms on an average, the hut owner lets out the balance of 6·30 rooms which are rented out to 6 tenant families.
>
> A bustee at Howrah has 5·58 huts having 48·75 rooms on an average where 35·4 tenant families and 5·1 lessee families live.

The state of water supply in the bustees is analysed at pp. 18-19 of the Report as:

> The deplorable condition of the water-supply in the bustees will be at once evident. Out of 3,179 huts in the bustees of Calcutta, only 1,216 huts have some arrangement of water-supply, possessing 1,246 taps, 106 wells and 15 tube-wells among them. There are some very bad cases; 157 huts out of 159 in ward no. 18, 123 out of 135 in ward no. 21 and 264 out of 342 in ward no. 25 have no arrangement whatsoever for the supply of water. The more fortunately situated huts are in ward nos. 5, 8, 9, 11 and 23, where 42 out of 58 huts, 35 out of 46, 42 out of 59, 24 out of 26, and 13 out of 20 huts have some arrangement for the supply of water. It will be found that all of these bustees are small in comparison with most of the remaining ones.
>
> The condition at Howrah can be realised from the fact that in only 11 out of the 67 huts, is there some arrangement for water-supply.

On an average 61·7 per cent. of the huts in the bustees of Calcutta have no arrangement for any water-supply; 54·6 per cent. of the bustee dwellers live in such huts. Dwellers who are more fortunate in having water-supply are served at the rate of 25·6 persons per tap. The difference among the wards is very pronounced; the proportion of huts having no water-supply varying from 7·7 per cent. in ward no. 11 to 98·7 per cent. in ward no. 18.

Thus, it is found that out of about 8·20 lakhs of people living in the bustees of Calcutta, as many as 4·48 lakhs have to depend on street hydrants or ponds for their water-supply. At Howrah the corresponding figures are 15·7 thousands and 10·5 thousands, respectively.

Analysis of the percentage distribution of huts by nature of place of cooking is made as follows:

> Separate kitchen is provided in only 15·5 per cent. of the huts in the bustees of Calcutta. In 70·0 per cent. of the huts cooking is done in some sort of verandah and in 10·4 per cent. of the huts it is done in the bed room. In 4·1 per cent. of the huts no cooking is done. The percentage of huts having a separate kitchen exceeds 30 in ward 31 only, 25 in wards 23*, 29 and 32 and is less than 5 in wards 8, 13* and 14. No separate kitchens were found in the sampled bustees in ward nos. 7*, 10* and 15*. Cooking is done in the verandah in more than 70 per cent. of the huts in wards 1, 3, 5, 14, 18, 20, 22, 25, 26, 27, 28, 29, and 30. In 25 per cent. of the huts in ward 23* there is no arrangement for cooking. In ward 15, the percentage is 22·7 and in ward 9, the percentage is 20·7.
>
> In the bustees of Howrah cooking is done in a separate kitchen in 14·9 per cent. of the huts, in verandah in 47·0 per cent. huts, in the bed room in 27·6 per cent. of the huts. In the remaining 10·5 per cent. huts there is no arrangement for any place for cooking. Thus, it will be found that whereas in 85·5 per cent. of the huts in the bustee of Calcutta, cooking is done either in a kitchen or in the

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* The percentage is subject to a large sampling error due to the small size of the sample.

verandah, the corresponding figure for Howrah is 61·9 only. The percentage of huts in Howrah where cooking is done in the bedroom is three times that at Calcutta and the percentage of huts at Howrah having no arrangement for cooking is two and a half times as much as that at Calcutta.

Analysis of huts with or without latrines is made as follows:

In the bustees of Calcutta 14·7 per cent. of the huts are without any latrines and 10·1 per cent. of the bustee dwellers live in these huts. Three types of latrines were found, *viz.*, the "service" type, the "septic tank" type and "flushed" latrines connected with the Corporation's sewer system. The respective percentages are 63·5, 3·7 and 32·8, respectively. The service type is more common in wards 18, 19, 21, 24, 25, 28, 29, 30, 31 and 32, the septic tank type in ward no. 9 and the flushed type in the remaining wards. The percentage of huts not having any latrine varies from 50·7 per cent. in ward no. 6 to nil in wards 7* and 14 and the percentage of people living in these huts ranges from 40·8 in ward no. 6 to nil in wards 7* and 14. On an average a latrine is used by 23·0 persons, the number ranging from 11·1 in ward no. 31 to 45·2 in ward no. 5.

At Howrah, 13·4 per cent. of the huts have no latrines where only 5·7 per cent. of the bustee dwellers live. Only the "service" type of latrine was found in the sample, each of which was used by 21·1 persons on an average.

35. By the time the census was taken in March 1951, overcrowding had increased still further and the following is taken from an article by the writer on the population of Calcutta in *CALCUTTA*, a volume published on the occasion of the 39th Session of the Indian Science Congress in January, 1952.

But these averages or even what is said below can at best give only an approximate idea of the real condition of the people. An area covered by buildings of 'the character of Queen Anne's mansions in London', or nearer home, in the Camac Street area, and having the same density per acre as an area covered by the class of structures found in a Calcutta *bustee*, would obviously be inhabited by a population which lived in conditions essentially different from those prevailing in the latter area. We can, therefore, arrive at a much more correct idea of the actual condition of the people by considering the question of house accommodation. The city's housing and other amenities, meagre and unsatisfactory since her origin, have been put to a sudden and severe strain since 1947. On March 1 there were 606,926 census units consisting of one room or more each and 710,579 living rooms; the average number of living rooms per census unit came to 1·17. They accommodated 2,548,677 persons or 4·2 persons per census unit. Of these 685,146 persons did not lead family lives and 1,863,532 lived on a normal family pattern in 350,916 families. The average works out at 3·6 persons per living room (an average which masks acute cases of congestion where more than two families of different castes were frequently found to occupy the same room), and 5·3 persons per family, also a high figure which indicates that most families are now obliged to 'keep' distant relations or unrelated persons. The full impact of the sudden influx of a large Displaced population (433,228) cannot be analysed in this short space, but it will be sufficient to reflect that in the 3,615 *bustees* of Calcutta, having 21,556 huts and 155,624 living rooms, containing 617,374 souls (almost a quarter of Calcutta's population) no less than 112,515 are Displaced refugees (18·2 per cent. of the bustee population and 26 per cent. of the Displaced population of Calcutta).

The average number of persons per living room in a bustee works out at almost 4. The Sample Bustee Inquiry report does not give the average size of a living room. It, however, gives the average size of a tenant family in a bustee in 1948-49 as 3·48 and the per capita average floor space for it as 24·82 sq. feet. The average per capita floor space, which varies from well ventilated cement floors to unventilated wet mud floors with practically no plinth at all, must have diminished still further in 1951.

Persons per census house and houses per square mile

36. There can be no comparison of figures for those of 1891 and after with the figures for 1881, when the unit of a census house was a different one but it is worth while to reproduce 1881 if only to indicate to what extent a *bari* or homestead is likely to contain more people even now in rural areas than a census house. The following Statement I.14 shows the average number of persons per inhabited 'census house' during 1881-1951.

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* The percentage is subject to a large sampling error due to the small size of the sample.

STATEMENT I.14

Average number of persons per inhabited 'census house' 1881-1951

District	1951			1941	1931	1921	1911	1901	1891	1881
	Total	Rural	Urban							
Burdwan	4·56	4·49	4·96	4·9	4·1	4·0	4·3	4·2	4·3	4·8
Birbhum	4·45	4·44	4·65	4·7	4·5	4·2	4·6	4·3	4·2	4·4
Bankura	4·54	4·59	3·93	5·0	4·7	4·5	4·9	4·8	5·0	6·2
Midnapur	4·67	4·65	4·94	5·1	4·7	4·6	4·8	4·8	4·9	6·0
Hooghly	4·38	4·38	4·37	4·6	4·2	4·0	4·1	4·0	3·8	4·2
Howrah	4·49	4·62	4·25	5·2	4·6	4·6	4·3	4·5	4·9	5·6
24-Parganas	4·86	5·07	4·43	4·7	4·9	4·9	5·4	5·4	5·7	5·4
Calcutta	4·21	..	4·21	5·6	5·7	5·3	20·2	6·8	10·1	17·7
Nadia	4·90	4·73	5·81	5·2	4·5	4·4	4·7	4·8	5·0	5·6
Murshidabad	4·87	4·84	5·36	5·0	4·8	4·5	4·9	4·7	4·4	4·8
Malda	5·12	5·11	5·55	5·8	5·3	5·3	5·7	5·4	5·5	5·6
Dinajpur	4·80	4·77	5·41	5·3	5·3	5·5	5·6	5·4	5·6	5·6
Jalpaiguri	4·58	4·51	5·79	4·5	4·7	4·9	5·3	5·0	5·4	6·1
Darjeeling	4·77	4·72	4·95	4·6	4·5	4·3	4·1	4·1	4·9	5·3
Cooch Behar	4·61	4·58	5·11	5·1	5·1	5·2	5·2	5·1	4·9	5·2
Sikkim	**5·64**	**5·69**	**3·95**	**5·2**	**4·1**	**5·5**	**5·3**	**5·3**	..	..

NOTE—Figures for 24-Parganas, Nadia, Malda, Dinajpur, and Jalpaiguri before 1951 ar based on figures for them before the Partition

37. A comparison between 1881 and 1891 shows the extent to which a homestead or a complete house contained more persons than a census house. For West Bengal and Burdwan Division the difference was between 5·3 in 1881 and 4·5 in 1891 or ·8 persons less per census house as soon as the average homestead was reduced to a census unit. The figures for 1881 and 1911 for Calcutta are interesting insofar as they reveal the number of persons inhabiting a municipal premise entered on the tax-rolls of the Corporation (Compare "The figures for Cities give very divergent results, owing to the fact that in Calcutta and the suburban municipalities of Cossipur-Chitpur, Manicktola and Garden Reach the unit was the municipal premise. In Howrah City where the Bengal definition of house was adopted, the average number of persons enumerated in each house is only 2·9, this low figure is due to the number of *bustees* with a cooly population where each hut or room was treated as a house". Report for 1911, page 48). The statement reflects even the effects of the Influenza epidemic of 1918-19 on the average composition of a census house in 1921. Almost every district except Howrah, Darjeeling and Cooch Behar registered a noticeable fall from 1911 in the strength of a census house in 1921. The average for Burdwan Division fell from 4·6 to 4·3 and that for the Presidency Division from 5·5 to 5·0 in those ten years. The periods between 1891 and 1911 and between 1931 and 1941 show steadiness in the composition of the census unit; curiously enough, except in Burdwan Division generally, and in Nadia, Murshidabad and Malda, no other district betrays any *marked* sign in the

strength of the census unit to suggest bogus inflations in the 1941 count. But such evidence as is there, of course, insinuates a great deal. The drop from 5·6 in 1941 to 4·2 in 1951 in Calcutta would certainly have been something immediately to seize upon as evidence, had not the figure of 5·7 for 1931 cautioned one to be canny before jumping to conclusions. The urban-rural distribution of the strength of the census house for 1951 is instructive. In the districts of Burdwan, Midnapur, Nadia, Murshidabad, Malda, West Dinajpur, Jalpaiguri, Darjeeling and Cooch Behar where the average number of persons per occupied house in the urban areas exceeds that in the rural areas, it may be suggested that the urban household has drawn from the village not only the full family unit but also its near relations for education, business or subsistence. In districts Bankura, Howrah, 24-Parganas and Sikkim where the number of persons per household in the town is less than that in the village the full family unit presumably does not live in the town, but keeps up a traffic between it and the village. That is, in the former group of districts migration from the village to the town is more complete, while in the latter migration is tentative and suggests circulation of population. Calcutta's figure, being the least, confirms the observation that a large proportion of the city's population does not lead a normal family pattern.

38. If it were not for the joint family system, *i.e.*, if every man living with his wife had a house of his own, the varying size of the house, which would then represent the family in the ordinary acceptance of the term, would afford a good index to the progressiveness or decadence of the population. But that yardstick is denied to us. Even then not everything is denied; for instance, every district in the Burdwan Division shows a smaller household composition than any district barring Calcutta in the Presidency Division. It will be seen later that the rate of growth of the natural population of the Burdwan Division is slightly less than the rate of growth of the natural population of the Presidency Division which may explain the difference but it also holds good today what the Superintendent of 1911 said for his decade that there is a tendency in the former Division of every married man to set up a separate establishment as soon as he takes his wife to live with him. But as matters stand, small differences may be due as much to a decrease in the size of the unitary family as to the varying extent to which, in different districts or at different times, married sons remain in, or leave, the parental home. But the conclusion seems permissible that between 1891 and 1951 there has been little or no tendency in the state as a whole for families to break up. Such changes in the average size of the family in a district as have taken place can generally be accounted for by variations in the birth-rate and in the number of children. The larger average size in so many districts in 1911 was due to the fact that the population had increased faster in the previous decade. It will be noticed that generally speaking there is a close correlation between the size of the family in each district and its rate of growth of the population, which points to the conclusion that it is variations in the rate of natural fecundity and the number of children per family that are responsible for variations in its average size, rather than any definite tendency for families to break up.

39. Some idea of the strength of the joint family system prevailing in different districts may be gathered by comparing the number of houses in a district with the number of married females over 15 years of age, but here too the comparison is obscured by the fact that in some parts the proportion of married females only slightly over 15 years of age is higher than in others. Nevertheless, Statement I.15 shows for the period 1891-1951, the number of married women aged 15 and over per 100 census houses.

STATEMENT I.15

Number of married women of age 15 and over per 100 census houses, 1891-1951

State and Districts	1951	1941	1931	1921	1911	1901	1891
West Bengal	**94**	**94**	**90**	**86**	**94**	**89**	**90**
Burdwan	104	95	81	79	84	80	78
Birbhum	100	100	95	88	93	85	83
Bankura	94	98	93	83	95	91	94
Midnapur	102	100	92	85	93	92	91
Hooghly	86	86	78	72	76	71	66
Howrah	86	96	87	86	79	81	86
24-Parganas	96	89	95	92	99	100	105
Calcutta	61	72	80	74	271	93	140
Nadia	107	92	84	80	88	87	90
Murshidabad	107	96	93	86	91	86	80
Malda	113	118	102	101	106	99	98
West Dinajpur	100	107	104	105	102	103	108
Jalpaiguri	89	87	92	91	99	93	99
Darjeeling	94	84	85	85	81	81	97
Cooch Behar	88	99	82	83	85	80	79
Sikkim	**105**	**89**	**85**	**123**	**115**	**125**	..

NOTE—In 1891 and 1911 the occupied census house in Calcutta was a municipal premise, which explains the large ratio for those years.

40. At the last census in connexion with an inquiry conducted on a sample basis to find out the number of children born and surviving to married women, an attempt was made to estimate the number of married women per census house. The sample was made to cover every thana of a district surveyed. Married women of all ages were taken into account and only those houses were counted which contained at least one married woman. The inquiry necessarily included girls below 15 years of age who were counted either in their parents' or husbands' homes. Statement I.15, however, has been prepared for an age group designed to keep this contingency to a minimum. The following Statement I.16 for those districts in which the inquiry was conducted estimates the number of married females per census house, and differs from Statement I.15 inasmuch as (*a*) it takes into account only those houses where at least one married female was found, whereas in Statement I.15 the number of married females of age 15 and over has been shown as a percentage of the total number of census houses in a district; (*b*) it takes into account all married females in a census house irrespective of their age.

STATEMENT I.16

Number of married females of all ages per census house in a Sample Survey in December, 1950

District	No. of census houses	Total number of married females	No. of families with 1 married female	No. of families with 2 married females	No. of families with 3 married females	No. of families with 4 married females	No. of families with 5 married females	No. of families with over 5 married females
Birbhum	2,735	3,936	1,915	553	185	56	21	5
Bankura	4,679	6,729	3,280	932	333	97	27	10
Howrah	4,207	5,938	3,056	739	280	105	20	7
24-Parganas	9,745	13,742	7,031	1,861	529	241	67	16
Malda	3,025	4,418	2,114	594	207	71	29	10
West Dinajpur	2,714	3,704	1,995	520	149	35	10	5

41. Care was taken to make the randomness of the samples satisfactory and the survey indicates that the joint family system, far from disintegrating as is loosely imagined, is still quite strong both in the north and the south-west and even in the surroundings of the metropolitan industrial area of 24-Parganas.

42. No attempt was made in past censuses to estimate the proportion in the total population of the normal type of family, or of the population leading normal domestic lives. Statement I.15, for instance, suggests that in every census there was a gap between the total number of households and those with a regular family pattern, and if we took into account the conclusions permissible from a study of Statement I.16 as applicable to previous censuses as well—because if anything the joint family belongs more to the past than to the future—this gap would seem to widen still further. The compilation of the National Register of Citizens in 1951 provided an opportunity to make a total count of the number of households based on the family pattern, the population living on that pattern, and of the population who live in institutions, boarding houses, lodgings, etc., away from the rest of their family. A mere account of these categories, district by district, will have an abiding interest for sociologists and students of West Bengal's population, as disclosing the extent of departure from the norm of society: the family. It should be pointed out that the percentage of the population counted in hospitals, asylums, jails, students' hostels and other institutions where people compulsorily live single lives is very small compared to the total population which lives away from the family. The houseless population is also negligible if by that phrase we mean persons with no kind of shelter at all, for even boats and tents were, for the purpose of the census, counted as houses. Statement I.17(*a*) printed below gives an account of the total and household populations, classified by total, rural and urban, and total, males and females, and Statement I.17(*b*) the number of occupied houses, number of households and number of institutional census houses, classified into total, rural, urban.

STATEMENT I.17(a)

Total, household, institutional and houseless population classified by rural and urban males and females, 1951

	TOTAL POPULATION								
	TOTAL			RURAL			URBAN		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
West Bengal	**24,810,308**	**13,345,441**	**11,464,867**	**18,657,045**	**9,631,413**	**9,025,632**	**6,153,263**	**3,714,028**	**2,439,235**
Burdwan Division	*11,102,530*	*5,799,561*	*5,302,969*	*9,494,848*	*4,867,393*	*4,627,455*	*1,607,682*	*932,168*	*675,514*
Burdwan	2,191,667	1,160,761	1,030,906	1,867,726	978,450	889,276	323,941	182,311	141,630
Birbhum	1,066,889	540,361	526,528	997,896	503,095	494,801	68,993	37,266	31,727
Bankura	1,319,259	665,853	653,406	1,224,641	617,242	607,399	94,618	48,611	46,007
Midnapur	3,359,022	1,718,459	1,640,563	3,106,142	1,584,290	1,521,852	252,880	134,169	118,711
Hooghly	1,554,320	823,923	730,397	1,209,390	618,487	590,903	344,930	205,436	139,494
Howrah	1,611,373	890,204	721,169	1,089,053	565,829	523,224	522,320	324,375	197,945
Presidency Division	*13,707,778*	*7,545,880*	*6,161,898*	*9,162,197*	*4,764,020*	*4,398,177*	*4,545,581*	*2,781,860*	*1,763,721*
24-Parganas	4,609,309	2,499,660	2,109,649	3,243,340	1,685,426	1,557,914	1,365,969	814,234	551,735
Calcutta	2,548,677	1,623,211	925,466	..	..	..	2,548,677	1,623,211	925,466
Nadia	1,144,924	590,936	553,988	936,823	482,932	453,891	208,101	108,004	100,097
Murshidabad	1,715,759	869,458	846,301	1,580,832	799,281	781,551	134,927	70,177	64,750
Malda	937,580	476,794	460,786	902,419	457,820	444,599	35,161	18,974	16,187
West Dinajpur	720,573	383,853	336,720	678,633	360,177	318,456	41,940	23,676	18,264
Jalpaiguri	914,538	501,090	413,448	848,393	461,705	386,688	66,145	39,385	26,760
Darjeeling	445,260	239,018	206,242	350,779	184,106	166,673	94,481	54,912	39,569
Cooch Behar	671,158	361,860	309,298	620,978	332,573	288,405	50,180	29,287	20,893
Chandernagore	**49,909**	**28,220**	**21,689**	..	..	..	**49,909**	**'28,220**	**21,689**
Sikkim	**137,725**	**72,210**	**65,515**	**134,981**	**70,582**	**64,399**	**2,744**	**1,628**	**1,116**

STATEMENT I.17(a)—concld.

Total household, institutional and houseless population classified by rural and urban males and females, 1951

State and District	Household Population								
	Total			Rural			Urban		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
West Bengal	**24,050,621**	**12,686,302**	**11,364,319**	**18,467,971**	**9,492,862**	**8,975,109**	**5,582,650**	**3,193,440**	**2,389,210**
Burdwan Division	*10,969,057*	*5,707,246*	*5,261,811*	*9,399,111*	*4,801,511*	*4,597,600*	*1,569,946*	*905,735*	*664,211*
Burdwan	2,170,676	1,144,940	1,025,736	1,851,185	966,364	884,821	319,491	178,576	140,915
Birbhum	1,053,046	532,111	520,935	984,609	495,227	489,382	68,437	36,884	31,553
Bankura	1,308,392	658,368	650,024	1,214,747	610,440	604,307	93,645	47,928	45,717
Midnapur	3,320,558	1,695,546	1,625,012	3,082,557	1,568,939	1,513,618	238,001	126,607	111,394
Hooghly	1,524,218	803,439	720,779	1,185,932	602,812	583,120	338,286	200,627	137,659
Howrah	1,592,167	872,842	719,325	1,080,081	557,729	522,352	512,086	315,113	196,973
Presidency Division	*13,081,564*	*6,979,056*	*6,102,508*	*9,068,860*	*4,691,351*	*4,377,509*	*4,012,704*	*2,287,705*	*1,724,999*
24-Parganas	4,531,649	2,432,086	2,099,563	3,221,289	1,665,393	1,555,896	1,310,360	766,693	543,667
Calcutta	2,094,855	1,196,374	898,481	..	..	..	2,094,855	1,196,374	898,481
Nadia	1,116,735	569,619	547,116	917,679	468,793	448,886	199,056	100,826	98,230
Murshidabad	1,700,277	856,948	843,329	1,569,501	790,179	779,322	130,776	66,769	64,007
Malda	923,185	465,609	457,576	888,798	447,307	441,491	34,387	18,302	16,085
West Dinajpur	711,689	375,932	335,757	672,416	354,861	317,555	39,273	21,071	18,202
Jalpaiguri	900,700	491,237	409,463	837,857	454,803	383,054	62,843	36,434	26,409
Darjeeling	442,051	237,484	204,567	348,196	183,091	165,105	93,855	54,393	39,462
Cooch Behar	660,423	353,767	306,656	613,124	326,924	286,200	47,299	26,843	20,456
Chandernagore	**49,257**	**27,740**	**21,517**	..	..	..	**49,257**	**27,740**	**21,517**
Sikkim	**137,652**	**72,145**	**65,507**	**134,908**	**70,517**	**64,391**	**2,744**	**1,628**	**1,116**

State and District	Institutional and Houseless Population								
	Total			Rural			Urban		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
West Bengal	**759,687**	**659,139**	**100,548**	**189,074**	**138,551**	**50,523**	**570,613**	**520,588**	**50,025**
Burdwan Division	*133,473*	*92,315*	*41,158*	*95,737*	*65,882*	*29,855*	*37,736*	*26,433*	*11,303*
Burdwan	20,991	15,821	5,170	16,541	12,086	4,455	4,450	3,735	715
Birbhum	13,843	8,250	5,593	13,287	7,868	5,419	556	382	174
Bankura	10,867	7,485	3,382	9,894	6,802	3,092	973	683	290
Midnapur	38,464	22,913	15,551	23,585	15,351	8,234	14,879	7,562	7,317
Hooghly	30,102	20,484	9,618	23,458	15,675	7,783	6,644	4,809	1,835
Howrah	19,206	17,362	1,844	8,972	8,100	872	10,234	9,262	972
Presidency Division	*626,214*	*566,824*	*59,390*	*93,337*	*72,669*	*20,668*	*532,877*	*494,155*	*38,722*
24-Parganas	77,660	67,574	10,086	22,051	20,033	2,018	55,609	47,541	8,068
Calcutta	453,822	426,837	26,985	..	..	..	453,822	426,837	26,985
Nadia	28,189	21,317	6,872	19,144	14,139	5,005	9,045	7,178	1,867
Murshidabad	15,482	12,510	2,972	11,331	9,102	2,229	4,151	3,408	743
Malda	14,395	11,185	3,210	13,621	10,513	3,108	774	672	102
West Dinajpur	8,884	7,921	963	6,217	5,316	901	2,667	2,605	62
Jalpaiguri	13,838	9,853	3,985	10,536	6,902	3,634	3,302	2,951	351
Darjeeling	3,209	1,534	1,675	2,583	1,015	1,568	626	519	107
Cooch Behar	10,735	8,093	2,642	7,854	5,649	2,205	2,881	2,444	437
Chandernagore	**652**	**480**	**172**	..	..	..	**652**	**480**	**172**
Sikkim	**73**	**65**	**8**	**73**	**65**	**8**	..	..	..

STATEMENT I.17(b)

Number of occupied houses, households and institutional houses, 1951

State and District	No. of occupied houses			f households			No. of Institutional Census houses		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
West Bengal	**5,357,096**	**3,969,615**	**1,387,481**	**4,898,158**	**3,824,887**	**1,073,271**	**458,938**	**144,728**	**314,210**
Burdwan Division	*2,444,466*	*2,087,056*	*357,410*	*2,364,783*	*2,026,058*	*338,725*	*79,683*	*60,998*	*18,685*
Burdwan	480,848	415,572	65,276	474,413	410,444	63,969	6,435	5,128	1,307
Birbhum	239,670	224,842	14,828	237,335	223,493	13,842	2,335	1,349	986
Bankura	290,726	266,657	24,069	283,065	259,848	23,217	7,661	6,809	852
Midnapur	719,363	668,132	51,231	696,908	650,723	46,185	22,455	17,400	5,046
Hooghly	354,978	275,961	79,017	337,527	262,675	74,852	17,451	13,286	4,165
Howrah	358,881	235,892	122,989	335,535	218,875	116,660	23,346	17,017	6,329
Presidency Division	*2,912,630*	*1,882,559*	*1,030,071*	*2,533,375*	*1,798,829*	*734,546*	*379,255*	*83,730*	*295,525*
24-Parganas	948,943	640,331	308,612	900,675	622,971	277,704	48,268	17,360	30,908
Calcutta	606,026	..	606,026	350,916	..	350,916	255,110	..	255,110
Nadia	283,874	198,037	85,837	210,602	178,187	32,415	23,272	19,850	8,422
Murshidabad	352,124	326,933	25,191	349,806	325,783	24,023	2,318	1,150	1,168
Malda	183,100	176,768	6,332	171,439	165,597	5,842	11,661	11,171	490
West Dinajpur	150,070	142,323	7,747	136,438	129,444	6,994	13,632	12,879	753
Jalpaiguri	199,638	188,215	11,423	195,695	185,673	10,022	3,943	2,542	1,401
Darjeeling	93,886	74,802	19,084	92,774	73,771	19,003	612	531	81
Cooch Behar	145,469	135,650	9,819	125,030	117,403	7,627	20,439	18,247	2,192
Chandernagore	**9,927**	..	**9,927**	**9,390**	..	**9,390**	**537**	..	**537**
Sikkim	**24,411**	**23,716**	**695**	**24,402**	**23,707**	**695**	**9**	**9**	..

FAMILY HOUSEHOLDS

The following Statement I.18 shows the number of households and the number of institutional census houses expressed as percentages of the total number of occupied houses.

STATEMENT I.18

Family households and Institutional census houses expressed as percentages of total occupied houses, 1951

State and District	Family households expressed as percentages of total occupied houses			Institutional census houses expressed as percentages of total occupied houses		
	Total	Rural	Urban	Total	Rural	Urban
West Bengal	**91·4**	**96·4**	**77·4**	**8·6**	**3·6**	**22·6**
Burdwan Division	*96·7*	*97·1*	*94·8*	*3·3*	*2·9*	*5·2*
Burdwan	98·7	98·8	98·0	1·3	1·2	2·0
Birbhum	99·0	99·4	93·4	1·0	0·6	6·6
Bankura	97·4	97·4	96·5	2·6	2·6	3·5
Midnapur	96·9	97·4	90·2	3·1	2·6	9·8
Hooghly	95·1	95·2	94·7	4·9	4·8	5·3
Howrah	93·5	92·8	94·9	6·5	7·2	5·1
Presidency Division	*87·0*	*95·6*	*71·3*	*13·0*	*4·4*	*28·7*
24-Parganas	94·9	97·3	90·0	5·1	2·7	10·0
Caloutta	57·9	..	57·9	42·1	..	42·1
Nadia	90·0	90·0	90·5	10·0	10·0	9·5
Murshidabad	99·3	99·6	95·4	0·7	0·4	4·6
Malda	93·6	93·7	92·3	6·4	6·3	7·7
West Dinajpur	90·9	91·0	90·3	9·1	9·0	9·7
Jalpaiguri	98·0	98·6	87·7	2·0	1·4	12·3
Darjeeling	99·3	99·3	99·6	0·7	0·7	0·4
Cooch Behar	85·9	86·5	77·7	14·1	13·5	22·3
Chandernagore	**94·6**	..	**94·6**	**5·4**	..	**5·4**
Sikkim	**100**	**100**	**100**	**0·0**	**0·0**	..

43. Statement I.19 expresses the household population as a percentage of the total population, classified by total, rural and urban, total males and females, and Statement I.20 the institutional and homeless population as a percentage of the household population. The percentage of the institutional and homeless population to total population can be readily deduced from Statement I.19 by subtracting its figure from 100.

STATEMENT I.19

Household population as percentage to total population, 1951

State and District	Total			Rural			Urban		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
West Bengal	**96·9**	**95·1**	**99·1**	**99·0**	**98·6**	**99·4**	**90·7**	**86·0**	**97·9**
Burdwan Division	*98·8*	*98·4*	*99·2*	*99·0*	*98·6*	*99·4*	*97·7*	*97·2*	*98·3*
Burdwan	99·0	98·6	99·5	99·1	98·8	99·5	98·6	98·0	99·5
Birbhum	98·7	98·5	98·9	98·7	98·4	98·9	99·2	99·0	99·5
Bankura	99·2	98·9	99·5	99·2	98·9	99·5	99·0	98·6	99·4
Midnapur	98·9	98·7	99·1	99·2	99·0	99·5	94·1	94·4	93·8
Hooghly	98·1	97·5	98·7	98·1	97·5	98·7	98·1	97·7	98·7
Howrah	98·8	98·0	99·7	99·2	98·6	99·8	98·0	97·1	99·5
Presidency Division	*95·4*	*92·5*	*99·0*	*99·0*	*98·5*	*99·5*	*88·3*	*82·2*	*97·8*
24-Parganas	98·3	97·3	99·5	99·3	98·8	99·9	95·9	94·2	98·5
Caloutta	82·2	73·7	97·1	..	..	..	82·2	73·7	97·1
Nadia	97·5	96·4	98·8	98·0	97·1	98·9	95·7	93·4	98·1
Murshidabad	99·1	98·6	99·6	99·3	98·9	99·7	96·9	95·1	98·9
Majda	98·5	97·7	99·3	98·5	97·7	99·3	97·8	96·5	99·4
West Dinajpur	98·8	97·9	99·7	99·1	98·5	99·7	93·6	89·0	99·7
Jalpaiguri	98·5	98·0	99·0	98·8	98·5	99·1	95·0	92·5	98·7
Darjeeling	99·3	99·4	99·2	99·3	99·4	99·1	99·3	99·1	99·7
Cooch Behar	98·4	97·8	99·1	98·7	98·3	99·2	94·3	91·7	97·9
Chandernagore	**98·7**	**98·3**	**99·2**	..	..	..	**98·7**	**98·3**	**99·2**
Sikkim	**99·9**	**99·9**	**100·0**	**99·9**	**99·9**	**100·0**	**100·0**	**100·0**	**100·0**

STATEMENT I.20

Institutional and houseless population as percentage of household population, 1951

	Total			Rural			Urban		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Femal
West Bengal	**3·2**	**5·2**	**0·9**	**1·0**	**1·5**	**0·6**	**10·2**	**16·3**	**2·1**
Burdwan Division	*1·2*	*1·6*	*0·8*	*1·0*	*1·4*	*0·6*	*2·1*	*2·9*	*1·7*
Burdwan	1·0	1·4	0·5	0·9	1·3	0·5	1·4	2·1	0·5
Birbhum	1·3	1·6	1·1	1·3	1·6	1·1	0·8	1·0	0·6
Bankura	0·8	1·1	0·5	0·8	1·1	0·5	1·0	1·4	0·6
Midnapur	1·2	1·4	1·0	0·8	1·0	0·5	6·3	6·0	6·6
Hooghly	2·0	2·5	1·3	2·0	2·6	1·3	2·0	2·4	1·3
Howrah	1·2	2·6	0·3	0·8	1·5	0·2	2·0	2·9	0·5
Presidency Division	*4·8*	*8·1*	*1·0*	*1·0*	*1·5*	*0·5*	*13·3*	*21·6*	*2·2*
24-Parganas	1·7	2·8	0·5	0·7	1·2	0·1	4·2	6·2	1·5
Calcutta	21·7	35·7	3·0	..	..	..	21·7	35·7	3·0
Nadia	2·5	3·7	1·3	2·1	3·0	1·1	4·5	7·1	0·9
Murshidabad	0·9	1·5	0·4	0·7	1·2	0·3	3·2	5·1	1·2
Malda	1·6	2·4	0·7	1·5	2·4	0·7	2·3	3·7	0·6
West Dinajpur	1·2	2·1	0·3	0·9	1·5	0·3	6·8	12·4	0·3
Jalpaiguri	1·5	2·0	1·0	1·3	1·5	0·9	5·3	8·1	1·3
Darjeeling	0·7	0·6	0·8	0·7	0·6	0·9	0·7	1·0	0·3
Cooch Behar	1·6	2·3	0·9	1·3	1·7	0·8	6·1	9·1	2·1
Chandernagore	**1·3**	**1·7**	**0·8**	..	..	..	**1·3**	**1·7**	**0·8**
Sikkim	**0·1**	**0·1**	**0·0**	**0·1**	**0·1**	**0·0**	..	..	..

44. Several conclusions can be drawn from Statement I.18. The percentage of family households to total number of occupied houses is greater in the rural than in the urban areas in every district, which is as it should be, except in Nadia where the proportion in the urban areas is slightly greater owing to the establishment of transit and refugee camps for Displaced persons in rural areas: not all Displaced persons have moved in full family units. Urban percentages of institutional census houses are as a rule higher in the Presidency Division than in the Burdwan Division, which indicates that the town in the former Division, especially in Murshidabad, Malda, West Dinajpur, Jalpaiguri and Cooch Behar, is still regarded as more a place of business and trade than residence. The percentages are understandably high in 24-Parganas, Calcutta and Jalpaiguri, but it is not easy to explain the high percentages of 13·5 and 22·3 of institutional houses in the rural and urban areas respectively of Cooch Behar, unless we presume that the migrating Muslim and immigrant Hindu in that district are still in a mood of indecision as to what finally to decide and have for the time being kept their families away. One notable feature is that tea garden labour in Darjeeling is well settled with families. Not so perhaps is labour in the industrial settlements of Burdwan, Hooghly, Howrah or 24-Parganas. Decadent towns in the north-east of the district, newly growing towns in the south, and the railway city of Khargpur in Midnapur district must account for the high percentage of institutional houses in that district.

45. Statements I.19 and I.20 suggest the following conclusions. The rural percentages in Statement I.19 are, as they should be, higher everywhere than the urban percentages except in Birbhum where, owing to the presence of small mines and quarries, rice and oil mills and work in connexion with the Mayurakshi Project, colonies of labour are situated in rural areas, and where the urban areas are more fully residential than anywhere else. It is interesting how the town dweller in West Dinajpur and Cooch Behar regards his town residence more as a temporary establishment than in any other district. The comparative largeness of non-family populations in Midnapur has already been commented upon, and Calcutta is preeminently a place of business and work and not residence.

All the industrial and plantation districts in the state, except Darjeeling, have larger percentages of non-family populations illustrating how comparatively unsettled and demographically rootless the industrial population is, suggesting that labour is seasonal, discontinuous and uncertain, that labourers must frequently be harking back to their village homes and agriculture that it must be difficult to hand down a tradition of hereditary skill from an older generation to a younger, that these characteristics involve waste of skill, longer periods of apprenticeship, and discontent in the labour force as well as loss in production.

46. The woman without her family about her is most frequently met with in the urban areas of Midnapur, where her number is 6·6 per cent. of the number of women living among families. Khargpur, the railway city, largely accounts for this preponderance with a large colony of women workers from outside the state. This category is also high in the mining and industrial areas of Burdwan, the jute mill areas of Hooghly and 24-Parganas where certain types of work in connexion with jute and cotton call for almost exclusive employment of South Indian women who bring to play their skill in handling copra and other fibres. It is high in the tea gardens of Jalpaiguri, presumably for employment in tea picking, but it is not clear why it should be higher than the average in Murshidabad and Cooch Behar, unless one associates them with unattached women and girls among immigrants. The proportion is 3 per cent. in Calcutta which is explained by the large number of working women and girls in the city, and a large maidservant and prostitute population. The existence of small numbers of non-family females in other rural and urban areas is readily explained by the number of lonely widows, colonies of maidservants and prostitutes.

Census Houses Per Square Mile

47. It is interesting to note the changes in the density of census houses in rural and urban areas of the State and Statement I.21 shows for districts the variations since 1881 in the average number of inhabited census houses. The comparatively low figure of 1881, compared to 1891, was due to the census house in 1881 having been identified with the homestead which also explains the low figures for Calcutta in 1881, 1891 and 1911. Figures on the district level mask the phenomenal growth at certain periods of time of particular police stations, which will, however, be brought out in the section on the density of population.

STATEMENT I.21

Average number of inhabited census houses per square mile, 1881-1951

State and District	1951	1941	1931	1921	1911	1901	1891	1881
Burdwan	178	143	143	133	132	134	121	107
Birbhum	138	127	122	116	117	120	108	104
Bankura	110	97	89	86	88	88	81	64
Midnapur	137	119	114	110	111	110	102	79
Hooghly	294	249	221	226	217	219	236	198
Howrah	641	508	429	388	394	339	261	203
24-Parganas	168	139	105	99	84	72	61	52
Calcutta	18,751	11,639	6,158	5,769	1,753	4,255	2,103	2,119
Nadia	155	109	108	111	103	111	109	104
Murshidabad	170	157	139	135	136	137	136	124
Malda	132	105	96	90	84	78	70	60
West Dinajpur	108	78	72	65	60	60	54	51
Jalpaiguri	84	81	70	64	54	48	34	20
Darjeeling	78	68	59	54	54	51	38	24
Cooch Behar	110	95	88	87	86	84	89	87
Sikkim	9	8	10	5	6	4	..	..

48. This statement has the advantage of reviewing the densities of districts on a reduced scale, but in view of the section on density which will come later, it is unnecessary to comment on this statement now.

Definition of the Village

49. Up to and including 1901 a 'village' was taken for census purposes to mean a residential village, *i.e.*, a collection of houses bearing a separate name with its dependent hamlets (Report for 1901, page 34). The reason given was that " in Bengal the records of the revenue survey have not been kept up to date and in most districts the (revenue) survey mauza is not clearly traceable ". In the first census of 1872 the classification of the village was rendered unreliable by ' the confusion which sprang up in the use of the word " village " which, while it was properly understood in some districts to signify the *inhabited village* or collection of houses, was interpreted in others to mean the *survey village* or " mauza ", *i.e.*, the lands belonging to a village entered in the survey list, and thus often extending over a large area and embracing more than one residential village. This source of error has, it is believed, been entirely avoided on the occasion of the census just taken; but its existence at that of 1872 has in a great measure vitiated any comparison which might be instituted between the populations of individual villages in 1872 and 1881' (Report for 1881, page 30). The 1881 census showed a great increase in the number of villages over 1872 for which three reasons were advanced: (*a*) an absolute increase in their number; (*b*) discovery of more villages in 1881 untraced in 1872 ; (*c*) and the third was the argument just advanced. The residential village and not the *mauza* was also accepted for 1891.

50. It was from 1911 onwards, without a break, that the *mauza* or survey or settlement village was treated as the census village.

51. The *mauza* consists of a parcel of land, the boundaries of which were defined either by the Revenue Survey in the middle of the nineteenth century or by later cadastral surveys. In West Bengal it is invariably the cadastral survey *mauza*. It usually bears the name of the main village or collection of houses found on it when the survey was made, but it does not necessarily correspond with the latter. It may contain only that one village, or it may contain a number of separate villages, or it may be uninhabited. In some cases the portion of the *mauza* which was inhabited at the time of the survey may have disappeared owing to the village or villages being abandoned, or it may be known by a different name, or new villages or groups of houses may have been established. The area and boundaries of the *mauza*, however, remain unchanged. It cannot disappear, except by being diluviated, even when it continues to be on the map ; it is therefore a constant unit. The size of the *mauza* on this account varies greatly, and some are surprisingly large and populous, especially in Jalpaiguri, Darjeeling and Cooch Behar. But generally it is about three-fourths of a square mile, varying from one-half to one and a half square miles. The adoption of the *mauza* as the census village in 1911 was a great improvement in several ways: (a) it accounted for every piece of land in the country and made omissions of villages impossible ; (*b*) the village became more or less a geographical, agricultural and economic unit and not just an arbitrary collection of cottages ; (*c*) it secured comparability from decade to decade and facilitated study of the movement of population from one population class of villages to another ; (*d*) on account of the number of villages over the decades remaining constant it became easy to estimate what proportion of villages of a certain population class was upgraded to a higher population class at the end of the decade, (i) as a result of natural

growth within the village and (ii) of immigration from outside ; and (*e*) how many villages were depopulated during the decade. Unfortunately, an account of the number of villages classified by population by police stations has not been handed down in the Tables Volume from census to census, neither has an account of uninhabited villages been preserved in successive censuses to offer comparison. It is therefore difficult to trace movements in the population of villages in particular parts of a district directly or with certainty ; neither is it possible to estimate the extent of total depopulation of villages and what attempts will be made about it in this and the next chapter will be *via negativa.*

52. The following Statement I.22 gives for each district the number of populated villages during 1901—51 at each census from 1901 :

STATEMENT I.22

Number of inhabited villages, 1901-51

State and District	1951	1941	1931	1921	1911	1901
West Bengal	**35,063**	**35,603**	**35,625**	**35,604**	**41,025**	**43,390**
Burdwan	2,649	2,703	2,631	2,811	2,769	3,662
Birbhum	2,207	2,211	2,402	2,299	2,216	3,317
Bankura	3,525	3,522	3.476	3,999	4,634	5,592
Midnapur	10,517	10,711	10,583	10,343	11,316	8,464
Hooghly	1,906	1,908	2,180	2,187	2,202	2,383
Howrah	815	828	1,111	861	967	1,451
24-Parganas	3,846	4,025	3,623	3,758	3,749	5,483
Calcutta	..	..	..	..	..	..
Nadia	1,238	1,182	1,240	1,228	1,221	1,655
Murshidabad	1,901	1,897	1,829	1.967	1,879	3,668
Malda	1,577	1,415	1,711	1.645	3,502	2,634
West Dinajpur	2,303	2,334	2,679	2.621	3.485	2,906
Jalpaiguri	776	889	429	412	1,384	414
Darjeeling	605	578	531	302	504	569
Cooch Behar	1,198	1,400	1,200	1,171	1,197	1,192
Sikkim	**99**	**99**	**367**	**407**	**315**	**125**

53. The variations over fifty years are due to (*a*) settlement operations changing the boundaries and number of *mauzas*. (*b*) changes in the number of uninhabited *mauzas*. (*c*) the absorption by towns of rural *mauzas*, and (*d*) inter-district and inter-provincial transfers. The figure for 1911 for Jalpaiguri is probably inflated by the inclusion of a number of enumerators' blocks in several thanas, while figures for Sikkim for 1901 to 1931 represent the number of bustees or hamlets.

54. The following Statement I.23 for 1951 gives for every district in West Bengal (i) the total number of *mauzas* borne on jurisdiction lists, (ii) number of uninhabited *mauzas*, (iii) number of *mauzas* included in urban areas, (iv) the number of inhabited villages, and (v) number of towns :

NUMBER OF VILLAGES AND TOWNS

STATEMENT I.23

Villages and towns in the State, 1951

State and District	Total No. of mauzas borne in Jurisdiction Lists	No. of uninhabited mauzas	No. of mauzas included in towns	No. of inhabited villages	No. of towns
West Bengal	**39,151**	**3,569**	**518**	**35,063**	**114**
Burdwan Division	*24,293*	*2,426*	*248*	*21,619*	*50*
Burdwan	2,825	135	41	2,649	14
Birbhum	2,489	266	16	2,207	5
Bankura	3,846	302	19	3,525	5
Midnapur	12,288	1,669	102	10,517	11
Hooghly	1,998	45	47	1,906	11
Howrah	847	9	23	815	4
Presidency Division	*14,858*	*1,143*	*270*	*13,444*	*64*
24-Parganas	4,113	106	161	3,846	33
Calcutta	..	..	..	..	1
Nadia[1]	1,451	184	29	1,238	7
Murshidabad	2,289	342	46	1,901	6
Malda[2]	1,802	214	9	1,577	2
West Dinajpur	2,402	87	12	2,303	3
Jalpaiguri [3]	801	24	5	776	2
Darjeeling[4]	671	55	12	605	4
Cooch Behar[5]	1,329	131	..	1,198	6
Sikkim	**100**	..	**1**	**99**	**1**

[1] Includes 2 Refuse Camps and 2 Refuse Transit Camps.

[2] J. L. 14 of P. S. Manikchak amalgamated with J. L. 12 of the same P. S. and J. L. 31 of P. S. Kharba transferred to Purnea District.

[3] Part of each of 4 mauzas shown as included in towns in Jalpaiguri is in rural area, and these 4 mauzas are therefore counted in the total of inhabited villages and excluded from the total number of mauzas included in towns.

[4] Part of J. L. 10 of P. S. Kurseong shown as included in towns in Darjeeling is rural area, and this mauza is therefore counted in the total of inhabited villages and excluded from the total number of mauzas included in towns.

[5] Number provided by Deputy Commissioner, Cooch Behar includes J. L. numbers, Chhit numbers, and Thaks. Since no mauza is entirely urban the number of mauzas included in town is counted within the number of inhabited mauzas.

Definition of town and city

55. A town has been defined in successive censuses as (*a*) an area, irrespective of population, which has been declared by the Government to be a municipality, and (*b*) where a municipality has not been established and yet the Government decides to call it a town for the ensuing census if the area has satisfied the following tests: (i) it has a population of not less than 5,000, (ii) a density of not less than 1,000 inhabitants to the square mile; (iii) that the area has some importance as a centre of trade or distribution or administration and that (iv) about three-quarters of the adult male population are chiefly employed in pursuits other than agriculture.

56. The definition of a city is any municipality or area under a local town administration with a population of over 100,000. A city must satisfy the definition of a town and in addition the

test of a population of over 100,000. There are no other tests. As a consequence it is difficult to appreciate why certain municipalities should suddenly rise to the prominence of cities when none of their amenities register any improvement or, rather than show improvement, betray contrary signs of breakdown in the existing facilities under the pressure of an increased population which they had not been designed to bear.

57. Clearly with such definitions of towns and cities their number is liable to fluctuate from census to census and the following Statement I.24 is quoted from the title pages of Union Table A IV. There is a tide in the affairs of certain towns which puts them on the map in some censuses but not in others. The movement of towns from one population class to another will be discussed later but suffice it to say that irrespective of what happens to any particular town the number of cities and towns in the state is on the increase since 1872.

58. Cities and towns are classified by population in the following six classes: I—those with a population of over 100,000; II—those with a population of 50,000 to 100,000; III—those with a population of 20,000 to 50,000; IV—those with a population of 10,000 to 20,000; V—those with a population of 5,000 to 10,000; and VI—those with a population of less than 5,000.

59. There were three cities in 1941 and two in all previous censuses. The third locality, which exceeded a population of 100,000 and qualified as a city in 1941 was Bhatpara. In 1951 four more localities have returned populations exceeding 100,000 and have qualified to be called cities: Tollyganj, Garden Reach, South Suburbs in 24-Parganas, and Khargpur in Midnapur. In 1951 there are therefore seven cities against three in 1941 and two before 1941.

60. The following is a statement of changes in the list of towns and cantonments from 1901 onwards; those numbering 74 in 1951, which do not find a place in it are to be considered as having continued as towns throughout the fifty-year period, excepting Garden Reach which was part of Calcutta in 1931 and Halisahar which was not a separate town in 1901.

STATEMENT I.24

Changes in the list of towns, 1901-51

Towns	1951	1941	1931	1921	1911	1901
1 Khargpur town	T	T	T	T	T	..
2 Kanchrapara	T	T	T	T	..	..
3 Siliguri	T	T	T	..	..	..
4 Champdani	T	T	T	T	..	..
5 Kulti	T	T	T	..	..	..
6 Rishra	T	(Separate town in 1944 before which it formed the town Rishra-Konnagar)				
7 Konnagar	T	Ditto				
8 Alipur Duar	T	..	..	..	..	..
9 Bangaon	T	T	..	..	..	..
10 Khardah	T	T	T	T	..	..
11 Burnpur	T	T	T	..	..	..
12 Balurghat	T	..	..	..	..	..
13 Kalimpong	T	T	T	..	..	..
14 Chittaranjan	T	..	..	..	..	..
15 Dhulian	T	T	T	T	T	..
16 Raiganj	T	..	..	..	..	..
17 Rampurhat	T	T	T	T	..	..
18 Bolpur	T	T	..	T	..	..
19 Ichhapur Defence Estate	T	..	..	..	..	..
20 Bauria	T	..	..	..	..	..
21 Contai	T	T	T	..	..	..
22 Uluberia	T	..	..	..	..	..
23 Dubrajpur	T	T	..	..	..	..

STATEMENT I.24—concld.

Changes in the list of towns, 1901-51

Towns	1951	1941	1931	1921	1911	1901
24 Kanchrapara Development Area, Rural Colony	T	..	..	..	..	..
25 Neamatpur	T	..	..	..	..	..
26 Barakar	T	T	..	..	..	..
27 Diamond Harbour	T	..	..	..	..	..
28 Sainthia	T	T	..	..	..	..
29 Hili	T	T	..	..	..	..
30 Jhargram	T	..	..	..	..	..
31 Disergarh	T	..	..	..	..	..
32 Canning	T	..	..	..	..	..
33 Batanagar	T	..	..	..	..	..
34 Memari	T	..	..	..	..	..
35 Garhbeta	T	..	..	..	..	..
36 Patrasair	T	T	T	T	..	..
37 Ondal	T	T	T	..	..	..
38 Khatra	T	..	..	..	..	..
39 Tufanganj	T	T	..	..	..	..
40 Mekliganj	T	T	..	..	..	..
41 Boldanga	..	T	T	T	..	..
42 Buxa	..	..	..	T	T	T
43 Lebong	..	T	T	..	..	..
44 Jalapahar	..	T	T	..	..	..

61. The following statement shows the progress in the number of towns of each class in West Bengal during 1901-51.

STATEMENT I.25

Number of towns of each class, 1901-51

Class of Town	1951	1941	1931	1921	1911	1901
Class I	7	3	2	2	2	2
Class II	14	10	2	4	2	..
Class III	27	28	21	23	19	15
Class IV	40	27	27	21	25	28
Class V	15	21	24	27	21	21
Class VI	11	10	14	8	8	8
Total	114	99	90	85	77	74

62. Although the populations of the following localities were below 5,000 in 1951 they have been treated as towns because (*a*) they were declared as such by the local government; (*b*) three of them are old municipalities, four more are run by town committees and three others were treated as towns in 1941; (*c*) the density of each exceeds 1,000 persons per square mile; and (*d*) except for Khatra where the numbers of persons and their dependants deriving their principal means of livelihood from agriculture and those deriving their livelihood from occupations other than agriculture are almost even, in all others the number of persons having non-agricultural livelihoods exceeds that of persons having agricultural livelihoods: (1) Ondal in Burdwan, (2) Patrasair and (3) Khatra in Bankura, (4) Garhbeta and (5) Khirpai in Midnapur, (6) Birnagar in Nadia, (7) Old Malda in Malda, (8) Mathabhanga, (9) Haldibari, (10) Tufanganj and (11) Mekliganj in Cooch Behar, and (12) Gangtok in Sikkim. In 1951 among a total of 114 census towns in West Bengal, 82 are municipalities, 31 non-municipal towns and one cantonment. Khargpur has a town within a town, called the Khargpur Railway settlement

63. The following Statement I.26 shows the progress in the number of towns in West Bengal during 1901-51.

STATEMENT I.26

Progress in the number of towns, 1901-51

(The first figure within brackets denotes number of municipalities and the second figure the number of cantonments)

State and District	1951	1941	1931	1921	1911	1901
West Bengal	114(82,1)	99(75,3)	90(74,3)	85(76,1)	77(72,1)	74(70,1)
Burdwan	14(6)	10(6)	9(6)	6(6)	6(6)	6(6)
Birbhum	5(3)	5(1)	2(1)	3(1)	1(1)	1(1)
Bankura	5(3)	4(3)	4(3)	4(3)	3(3)	3(3)
Midnapur	11(7)	9(7)	9(7)	8(7)	8(7)	7(7)
Hooghly	11(11)	10(10)	10(10)	10(10)	8(8)	8(8)
Howrah	4(2)	2(2)	2(2)	2(2)	2(2)	2(2)
24-Parganas	33(27,1)	29(27,1)	27(26,1)	28(28)	26(26)	25(25)
Calcutta	1(1)	1(1)	1(1)	1(1)	1(1)	1(1)
Nadia	7(6)	6(6)	6(6)	6(6)	6(6)	6(6)
Murshidabad	6(6)	7(6)	7(6)	7(6)	6(6)	5(5)
Malda	2(2)	2(2)	2(2)	2(2)	2(2)	2(2)
West Dinajpur	3(2)	1	..	..	..	..
Jalpaiguri	2(1)	1(1)	1(1)	2(1,1)	2(1,1)	2(1,1)
Darjeeling	4(4)	6(2,2)	6(2,2)	2(2)	2(2)	2(2)
Cooch Behar	6(1)	6(1)	4(1)	4(1)	4(1)	4(1)

NOTE—Beldanga in Murshidabad which counted as a town in 1921, 1931 and 1941 was omitted from the list in 1951, having lost its character as a town owing to the closure of its sugar mill. Buxa, then a cantonment in Jalpaiguri, was treated as a town in 1901, 1911 and 1921, while Lebong and Jalapahar cantonments in Darjeeling, were treated as two separate towns in 1931 and 1941 but included in Darjeeling town in 1951. Garden Reach went to Calcutta in 1931 and is not represented in 24-Parganas for that year. Cossipur-Chitpur and Manicktola were separate municipalities in 1901, 1911 and 1921. In 1901, 1911 and 1921 Barrackpur Cantonment was included in (South) Barrackpur town. In Cooch Behar except the district headquarters, all others are managed by town committees.

64. Seventeen new census towns have been shown for 1951, distributed by class as follows: Class III—Alipur Duar (Jalpaiguri); Class IV—Balurghat (West Dinajpur), Chittaranjan (Burdwan), Raiganj (West Dinajpur), Ichhapur Defence Estate (24-Parganas), Bauria (Howrah), Uluberia (Howrah), Kanchrapara Development Area Rural Colony (Nadia), Neamatpur (Burdwan); Class V—Diamond Harbour (24-Parganas), Jhargram (Midnapur), Disergarh (Burdwan), Canning (24-Parganas), Batanagar (24-Parganas), Memari (Burdwan); Class VI—Garhbeta (Midnapur) and Khatra (Bankura). Of these seventeen new towns Balurghat and Raiganj both of West Dinajpur became municipalities in 1951, after the census count, but their notified boundaries are slightly different from those adopted for the census: several plots of Mauzas Bara Raghunathpur (J. L. 139) and Hossenpur (J. L. 137) have been added to Balurghat and Mauza Barua (J. L. 152) to Raiganj.

Density

65. Apart from Subsidiary Tables I.1 and I.2 printed in Part IC of this Report another Subsidiary Table I.1a prepared specially for West Bengal is reproduced to differentiate intermediate densities within wide amplitudes. But before they are discussed with reference to similar tables published in previous years, it is worth while to make a note of the average densities of districts and divisions since 1872.

66. Statement I.27, reprinted in part from the title-page of Union Table E in the Tables Volume of 1951 shows changes in the average density of districts between 1872 and 1951, and further

analyses their densities in rural and urban tracts with reference to their respective areas in 1951. The areas and populations of districts at past censuses have been adjusted to their present ones in 1951, and the statement, therefore, will differ from any that may have been published in previous reports. The urban densities for different years have been worked out on the urban area of each district as it stood in 1951. The statement should be read with Subsidiary Table I.2.

STATEMENT I.27

Changes in Density (persons per square mile), 1872-1951

(Calculated on the areas supplied by the Director of Land Records and Surveys, West Bengal. For this reason, the density of West Bengal as a whole has been shown as 799 and not 806 as stated in Statement I.28 below)

State and District		1951	1941	1931	1921	1911	1901	1891	1881	1872
West Bengal	T	799	703	569	528	541	510	472	446	488
	R	610	562	485	456	474	452	422	402	395
	U	13,632	10,281	6,266	5,445	5,081	4,460	3,837	3,386	3,411
Burdwan Division	*T*	*786*	*729*	*613*	*570*	*600*	*584*	*545*	*524*	*539*
	R	*681*	*646*	*562*	*529*	*563*	*552*	*518*	*501*	*513*
	U	*9,037*	*7,173*	*4,583*	*3,792*	*3,458*	*3,084*	*2,668*	*2,335*	*2,548*
Burdwan	T	810	699	582	530	567	565	514	514	548
	R	700	625	542	502	540	541	496	496	521
	U	8,328	5,737	3,339	2,461	2,421	2,230	1,794	1,747	2,436
Birbhum	T	612	601	544	489	539	520	458	456	490
	R	577	572	536	479	539	520	457	455	489
	U	4,791	4,190	1,450	1,615	634	604	520	545	625
Bankura	T	498	487	420	385	430	422	404	394	366
	R	467	457	398	366	412	405	389	381	352
	U	3,878	3,770	2,756	2,495	2,344	2,183	2,065	1,770	1,884
Midnapur	T	639	607	533	508	537	531	501	479	485
	R	597	577	511	494	523	517	488	468	471
	U	5,109	3,799	2,800	1,957	2,058	1,816	1,816	1,651	1,886
Hooghly	T	1,286	1,140	922	894	902	868	856	838	958
	R	1,030	932	775	767	799	779	775	770	890
	U	10,115	8,296	5,970	5,259	4,442	3,926	3,630	3,198	3,297
Howrah	T	2,877	2,601	1,962	1,781	1,685	1,519	1,363	1,134	1,064
	R	2,004	1,951	1,552	1,433	1,365	1,241	1,160	975	916
	U	31,465	25,885	15,375	13,163	12,133	10,618	8,030	6,363	5,891
Presidency Division	*T*	*810*	*682*	*533*	*493*	*492*	*449*	*411*	*381*	*355*
	R	*550*	*491*	*421*	*394*	*399*	*368*	*342*	*320*	*295*
	U	*16,620*	*12,302*	*7,360*	*6,521*	*6,137*	*5,355*	*4,598*	*4,070*	*3,972*
24-Parganas	T	817	651	512	468	439	382	353	321	301
	R	591	509	418	388	370	333	360	285	272
	U	9,230	5,892	4,017	3,419	3,017	2,196	1,948	1,636	1,377
Calcutta	U	78,858	65,250	35,299	31,921	30,879	28,494	22,954	20,065	20,712
Nadia	T	759	557	478	472	514	512	512	536	495
	R	633	490	430	427	471	469	462	483	450
	U	6,914	3,863	2,852	2,653	2,661	2,647	2,984	3,098	2,702
Murshidabad	T	828	792	661	591	649	638	604	592	586
	R	773	743	625	556	617	609	572	559	546
	U	5,052	4,511	3,439	3,292	3,127	2,843	2,997	3,134	3,621

STATEMENT I.27—concld.

Changes in Density (persons per square mile), 1872-1951

State and District		1951	1941	1931	1921	1911	1901	1891	1881	1872
Malda	T	674	607	518	493	502	434	393	338	323
	R	650	588	505	482	490	422	381	326	311
	U	11,342	8,767	6,350	5,549	5,839	5,616	5,805	5,524	5,845
West Dinajpur	T	520	421	378	354	368	329	306	294	290
	R	492	418	..	..	..	..			
	U	5,592	927	..	..	..	..			
Jalpaiguri	T	385	356	311	292	279	229	183	133	85
	R	359	346	304	287	275	226	179	130	82
	U	7,603	3,191	2,180	1,703	1,352	1,183	1,172	912	758
Darjeeling	T	371	314	266	236	221	208	186	129	79
	R	296	268	233	214	203	192	173	121	77
	U	7,381	4,544	3,397	2,242	1,920	1,671	1,380	863	247
Cooch Behar	T	507	485	447	448	448	429	438	456	403
	R	471	466	435	436	438	419	430	450	399
	U	11,670	6,238	4,193	4,014	3,673	3,270	2,672	2,217	1,862
Chandernagore	U	**13,380**	**10,264**	**7,309**	**6,816**	**6,781**	**7,193**			
Sikkim	T	**50**	**44**	**40**	**30**	**32**	**21**	**11**		

67. The density of population per square mile for the State as a whole, taking its area according to the Surveyor General of India to be 30,775 square miles which is inclusive of all land area and the surface area of inland rivers and other inland waters, is 806 persons. Density varies from district to district, and the following is a statement arranging them in the order of decreasing density:

STATEMENT I.28

Density (persons per square mile) of districts, 1951

District	Density
West Bengal	**806**
Calcutta	78,858
Howrah	2,877
Hooghly	1,286
Murshidabad	828
24-Parganas	817
Burdwan	810
Nadia	759
Malda	674
Midnapur	639
Birbhum	612
West Dinajpur	520
Cooch Behar	507
Bankura	498
Jalpaiguri	385
Darjeeling	371

68. Statement I.27 will testify to the enormously rapid growth of towns after 1931. Up to 1931 their growth may be regarded as nothing unusual. Whereas during the thirty-year period of 1901-31 the urban density did not grow to half as much again as in 1901, it grew in 1951 to more than twice that of 1931. One's first thoughts would lead one to imagine that the bulk of this increase in density was supplied by Calcutta and the Industrial Areas but this is not so. Urban densities in most districts have increased between 1901 and 1931 on the one hand, and between 1931 and 1951 on the other, more or less on the scale observed for the state as a whole. The only districts where urban density has not increased during 1931-51 on the scale noticed above are Bankura, Midnapur, Hooghly, Murshidabad and Malda between 1931-51.

69. Density in rural areas has increased less spectacularly than in towns but even there, for the state as a whole, it has increased from 452 in 1901 to 610 in 1951 or by more than 50 per cent. of what it was fifty years ago. It has increased steadily except during 1872-81 and 1911-21. In the first of the two periods the notorious Burdwan Fever took a heavy toll of human lives in Burdwan, Birbhum, Midnapur and Hooghly reducing the general density per square mile in those districts by 34, 34, 6 and 120 respectively. In the second period of 1911-21 a succession of bad crops in various parts of the state, the Damodar Floods of August 1913, the Bankura Famine of 1915-16, and the malaria and influenza epidemics of 1918-19 robbed the state and certain districts of her population very substantially as the following Statement I.29 will prove.

STATEMENT I.29

Decrease in density per square mile between 1911 and 1921 in certain districts of West Bengal

State and District	Decrease in general density	Decrease in rural density
West Bengal	**13**	**18**
Burdwan Division	*30*	*34*
Burdwan	37	38
Birbhum	50	60
Bankura	45	46
Mindapur	29	29
Hooghly	8	32
Nadia	42	44
Murshidabad	58	61
Malda	9	8
West Dinajpur	14	..
Cooch Behar	0	2

70. The influenza and malaria epidemics and to a small extent the famine of 1915-16, succeeded in reducing even the urban densities in Midnapur (by 101), Nadia (by 8) and Malda (by 281). On the growth of the population during the decades 1872-81 and 1911-21 more will be said later. But it is worth while to observe here that elsewhere during 1911-21 urban densities increased. Neither did the epidemics seem to overpower natural increase and increase due to migration in the districts of Howrah, Jalpaiguri and Darjeeling.

71. But these averages for districts mask the extraordinary growth in density in comparatively small areas of certain districts in preference to the bulk of their areas, as a consequence of which it would seem that density selects only particular, small areas for its growth to the comparative neglect of other larger areas. These select areas of extraordinarily rapid growth in density will show what a searching nature a population, dislodged from traditional agriculture, or squeezed out by the pressure on land, has in finding sustenance elsewhere.

72. Before proceeding to variations in density of police stations of districts, it will be interesting to note the shifts in area and population of police stations of different densities between 1872 and 1951. Statement I.30 shows variations in areas of police stations classified according to density at commencement of each decade for West Bengal, Burdwan and Presidency Divisions between 1872 and 1951. Below each absolute figure in section (a) of the table will be found the percentage that figure bears to the total area of the state. For the purpose of this statement the 1951 areas and jurisdictions of police stations have been adopted and their densities in a particular year have been adjusted to the populations that they would contain in that year had their area and jurisdiction remained constant. This procedure has been adopted to secure comparability. It will be seen that Burdwan Division has been so crowded from the beginning that there has not been a single police station in it with a density under 150 persons per square mile since 1872.

AREA CLASSIFIED ACCORDING TO DENSITY

STATEMENT I.30

Areas of Police Stations classified according to density (persons per square mile) in the State, 1872-1951

(a) West Bengal

Year	Up to 150	151-300	301-450	451-600	601-750	751-900	901-1,050	1,051 and over
	Areas of Police Stations with density at commencement of decade (square miles) and their percentage to total area of State							
1	2	3	4	5	6	7	8	9
1951	1,802 5·8	1,416 4·6	6,139 19·8	8,234 26·5	5,134 16·5	2,460 7·9	1,624 5·2	4,234 13·7
1941	1,802 5·8	1,865 6·0	8,806 28·4	7,483 24·1	4,648 15·0	1,729 5·6	1,939 6·2	2,772 8·9
1931	2,027 6·5	3,438 11·1	9,958 32·1	7,379 23·8	3,451 11·1	1,963 6·3	924 3·0	1,905 6·1
1921	834 2·7	4,959 16·0	9,409 30·3	6,986 22·5	3,211 10·3	1,768 5·7	902 2·9	1,347 4·3
1911	1,148 3·7	3,264 10·5	9,695 31·2	6,294 20·3	4,782 15·4	1,571 5·0	1,079 3·5	1,582 5·1
1901	3,440 11·1	4,633 14·9	8,755 28·2	5,684 18·3	4,692 15·1	1,736 5·6	1,036 3·3	1,069 3·5
1891	4,497 14·5	4,963 16·0	8,024 25·8	7,152 23·1	2,925 9·4	1,530 4·9	801 2·6	1,153 3·7
1881	3,119 10·1	6,284 20·2	6,550 21·1	6,971 22·5	3,803 12·2	996 3·2	1,093 3·5	599 1·9
1872	4,005 12·9	6,774 21·8	5,690 18·3	6,398 20·6	3,292 10·6	1,182 3·8	707 2·3	1,366 4·4

(b) Burdwan Division

Year	Up to 150	151-300	301-450	451-600	601-750	751-900	901-1,050	1,051 and over
1951	..	195	3,149	4,449	2,058	1,409	901	1,956
1941	..	408	3,578	4,262	2,226	1,143	987	1,511
1931	..	1,191	4,292	3,741	2,190	1,158	511	1,034
1921	..	2,154	4,246	3,680	1,817	942	481	797
1911	..	864	4,927	2,583	3,318	876	613	935
1901	..	1,597	4,139	3,032	2,804	1,273	606	665
1891	..	1,896	4,350	4,234	1,243	1,072	562	760
1881	..	2,238	3,957	3,993	2,155	637	771	365
1872	..	3,113	2,933	3,480	2,292	603	604	1,091

(c) Presidency Division

Year	Up to 150	151-300	301-450	451-600	601-750	751-900	901-1,050	1,051 and over
1951	1,802	1,221	2,990	3,786	3,076	1,050	724	2,279
1941	1,802	1,456	5,228	3,221	2,422	585	952	1,261
1931	2,027	2,247	5,667	3,638	1,261	805	412	870
1921	834	2,805	5,162	3,306	1,394	826	421	550
1911	1,148	2,400	4,768	3,710	1,463	695	467	647
1901	3,440	3,036	4,616	2,652	1,888	462	430	404
1891	4,497	3,067	3,674	2,918	1,682	458		392
1881	3,119	4,046	2,592	2,978	1,648	358	—	234
1872	4,005	3,660	2,757	2,918	1,000	579	104	275

NOTE—Figures have been rounded off to whole numbers. The years 1921, 1911, 1881 and 1872 exclude the area of 24-Parganas Forest Division.

POPULATION CLASSIFIED ACCORDING TO DENSITY

STATEMENT I.31

Populations of police stations classified according to density (persons per square mile) showing percentage of each density class to total area of State, 1872-1951
(thousands)

(a) West Bengal

Populations of police stations with density at commencement of decade and their percentage to population of State

Year	Up to 150	151—300	301—450	451—600	601—750	751—900	901—1,050	1,051 & above
1	2	3	4	5	6	7	8	9
1951	19 0·1	346 1·4	2,417 9·7	4,306 17·4	3,451 13·9	2,023 8·2	1,548 6·2	10,700 43·1
1941	16 0·1	443 2·0	3,415 15·7	3,872 17·7	3,183 14·6	1,447 6·6	1,877 8·6	7,584 34·7
1931	46 0·3	870 4·9	3,712 21·0	3,822 21·6	2,279 12·9	1,578 8·9	865 4·9	4,492 25·5
1921	90 0·5	1,260 7·7	3,497 21·3	3,620 22·1	2,094 12·8	1,471 9·0	863 5·2	3,505 21·4
1911	124 0·7	756 4·5	3,580 21·3	3,262 19·4	3,192 19·0	1,321 7·9	1,021 6·1	3,537 21·1
1901	179 1·1	1,134 7·2	3,299 20·9	2,981 18·8	3,110 19·6	1,461 9·2	1,018 6·4	2,652 16·8
1891	271 1·9	1,246 8·5	2,951 20·1	3,768 25·7	1,960 13·4	1,233 8·4	780 5·3	2,440 16·7
1881	229 1·7	1,464 10·6	2,475 17·9	3,676 26·5	2,492 18·0	820 5·9	1,036 7·5	1,645 11·9
1872	234 1·6	1,533 11·3	2,167 15·9	3,372 24·8	2,161 15·9	949 7·0	666 4·9	2,529 18·6

(b) Burdwan Division

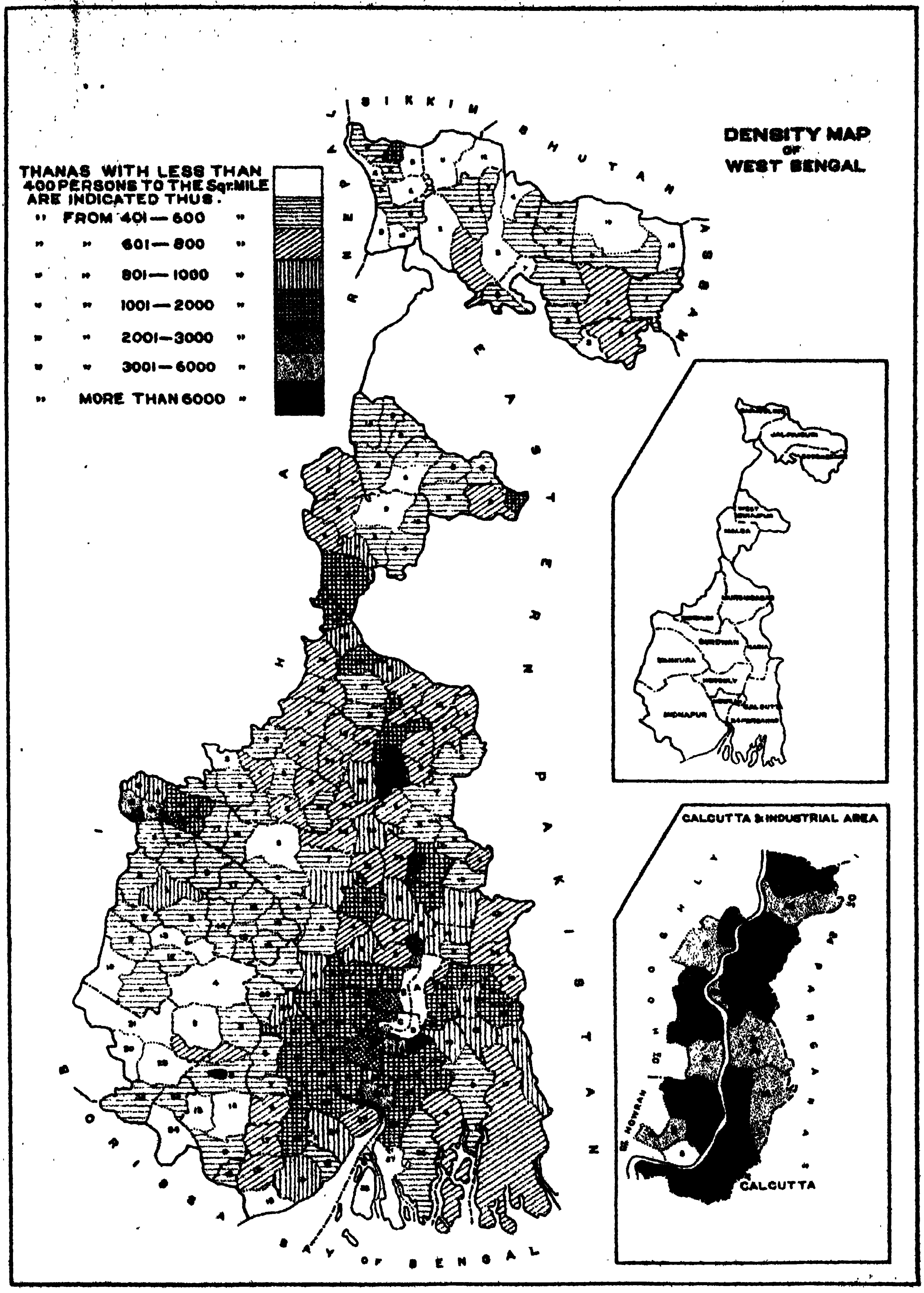
Year	Up to 150	151—300	301—450	451—600	601—750	751—900	901—1,050	1,051 & above
1951	..	58	1,229	2,348	1,415	1,167	867	4,018
1941	..	118	1,364	2,229	1,541	955	975	3,105
1931	..	338	1,612	1,943	1,427	940	472	1,915
1921	..	588	1,562	1,951	1,177	809	445	1,518
1911	..	231	1,803	1,361	2,181	757	570	1,563
1901	..	428	1,556	1,596	1,833	1,074	598	1,154
1891	..	482	1,578	2,267	837	860	551	1,114
1881	..	536	1,453	2,091	1,410	525	737	642
1872	..	702	1,081	1,821	1,507	486	572	1,436

(c) Presidency Division

Year	Up to 150	151—300	301—450	451—600	601—750	751—900	901—1,050	1,051 & above
1951	19	288	1,188	1,958	2,035	856	681	6,682
1941	16	325	2,051	1,643	1,641	492	902	4,480
1931	46	532	2,099	1,879	852	638	393	2,577
1921	90	672	1,935	1,669	917	662	418	1,987
1911	124	525	1,777	1,900	1,011	564	451	1,974
1901	179	706	1,743	1,384	1,277	387	420	1,498
1891	271	764	1,373	1,501	1,123	373	229	1,326
1881	229	928	1,022	1,586	1,082	295	299	1,003
1872	234	831	1,086	1,551	655	464	94	1,093

73. It is interesting to observe how in the case of West Bengal up to density class 301-450, areas with those densities decrease steadily from 1872 to 1951 and how they mount up and up the ladder in the density class 451-600 to higher and still higher figures from 1872 forward to 1931 and then shoot off laterally in the next two decades to distribute their peak between their own class and the next higher class 601-750. The full import of this will be discussed later. Above this density class there is a steady climb up the decades from 1872 to 1951 of the density class 751-900. There are again uncertain oscillations in density class 901-1050, but the next higher density class, with no ceiling to it, makes strident bounds from peak to higher peak between 1891 and 1951. The figures in this class of the years 1872 and 1881 show the appalling toll of human lives taken by the Burdwan Fever and famines in that decennium. But the dreadful fall in this class between 1872 and 1881 in the Burdwan Division, from 1,091 square miles to 365 square miles and from a population of 1.4 millions in that class to 0·6 million is enough to take one's breath away. It is significant how the lower density police stations have contracted in area and decreased in population in the course of 80 years, proving that the population has been steadily gravitating towards small areas of increasing density. This leads but to one conclusion that the increase in population is not spreading evenly over agricultural spaces but, on the contrary, is concentrating in uncomfortably small areas which are too small and crowded to sustain their population by agriculture alone.

74. Statement I.32 printed below arranges the densities of police stations of the State by administrative divisions, districts, and subdivisions and will well repay even a cursory examination. But before examining it in detail it is important to note in Statement I.27 how in no other West Bengal district except Hooghly and Howrah does the average rural density for the district as a whole exceed the general over-all average of 799, and in Statement I.28 how the average over-all densities of West Dinajpur, Cooch Behar, Bankura, Jalpaiguri and Darjeeling are a great deal below the average rural density of 610 for the State. It is a point of no small significance that the general rural average of 610 is a good 189 persons per square mile less than the general over-all one, and that it is only in Burdwan, Hooghly, Howrah, Nadia, Murshidabad and Malda that the district rural average density exceeds the general rural average for West Bengal as a whole ; rural densities in the remaining districts of Birbhum, Bankura, Midnapur, 24-Parganas, West Dinajpur, Jalpaiguri, Darjeeling and Cooch Behar being a great deal below the general rural density of the State. West Bengal has a total of 280 police stations of which 28 are in Calcutta, 5 in Howrah City and 247 are spread over the State. Among these 247 police stations there are 26 which are entirely rural and yet have densities exceeding 1,050 persons per square mile, another 43 are entirely rural having densities between 610 and 1,050 to the square mile, and as many as 108 have a density less than 610 to the square mile, of which no less than 22 have one town each, which means that in spite of some areas in them having densities of more than 1,000 persons to the square mile these 22 police stations are so sparsely populated that their over-all density does not exceed 610. Besides these 108, there are 40 non-industrial police stations in the State, most of which contain at least one non-industrial town, of each of which the density is more than 610 to the square mile ; but among these 40 non-industrial police stations as many as 23 have a density less than 1,050 to the square mile, while only 17 have a density over 1,050 each. Among the latter, the highest density is reached with only



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2,273 to the square mile in Nabadwip in Nadia, with the average for the 17 at 1,367. There are, outside Calcutta and Howrah, only 30 police stations which contain industries or industrial towns. Of these Salanpur and Barabani have densities of 909 and 837 respectively and Jamuria has a density of 1,231. While Salanpur has a new industrial town, Chittaranjan, Barabani and Jamuria have no town in them. Chinsurah and Magra in Hooghly containing an industrial town each having densities of 4,869 and 2,084 respectively and Raniganj, an industrial police station in Burdwan, with a town in it has a density of 2,180 to the square mile. Each of the remaining 24 industrial police stations outside Calcutta and Howrah contains densities in excess of the most densely populated non-industrial police station in the State.

STATEMENT I.32

Variations in density (persons per square mile) of administrative divisions (1872—1951)

(NOTE—For each year the density is adjusted to the area of the division for 1951. This explains the very slight discrepancies between the densities for 1941 below and in the Tables Volume)

	1951	1941	1931	1921	1911	1901	1891	1881	1872
WEST BENGAL	799	703	569	528	541	510	472	446	438
Burdwan Division	786	729	613	570	600	584	545	524	539
BURDWAN DISTRICT	810	699	582	530	567	565	514	514	548
Sadar Subdivision	*623*	*573*	*486*	*458*	*515*	*530*	*482*	*497*	*563*
Burdwan	975	897	642	600	660	676	599	603	674
Khandaghosh	598	566	522	504	601	614	557	547	673
Raina	594	515	463	455	544	563	510	519	545
Jamalpur	789	742	622	619	627	653	707	706	835
Memari	699	638	528	494	544	556	494	497	555
Galsi	582	531	482	419	491	507	441	430	496
Bhatar	529	482	416	389	428	438	389	391	438
Ausgram	391	381	344	327	368	378	336	420	479
Asansol Subdivision	*1,233*	*970*	*742*	*647*	*623*	*594*	*497*	*456*	*382*
Salanpur	909	510	461	439	415	393	298	232	162
Kulti	3,760	2,071	1,933	1,675	1,585	1,501	1,138	884	617
Hirapur	2,436	1,771	1,122	973	921	872	661	513	359
Asansol	3,762	2,734	1,733	1,502	1,421	1,346	1,021	792	554
Barabani	837	703	664	663	627	594	450	350	244
Jamuria	1,231	968	822	666	631	596	531	526	465
Raniganj	2,180	1,729	1,350	1,229	1,163	1,098	979	970	857
Ondal	1,205	1,056	787	588	556	525	468	464	410
Faridpur	453	450	379	358	422	320	285	282	250
Kanksa	461	356	320	284	326	342	321	358	363
Kalna Subdivision	*794*	*643*	*568*	*535*	*585*	*588*	*601*	*617*	*745*
Kalna	913	753	661	629	666	672	671	689	909
Purbasthali	787	549	498	489	551	569	580	617	614
Manteswar	667	625	541	479	531	514	546	535	706
Katwa Subdivision	*769*	*732*	*656*	*574*	*627*	*607*	*562*	*562*	*574*
Katwa	976	880	776	692	723	706	622	632	614
Mangalkot	631	582	555	472	512	500	508	522	531
Ketugram	711	746	645	566	654	622	561	538	579

STATEMENT I.32—contd.

	1951	1941	1931	1921	1911	1901	1891	1881	1872
BIRBHUM DISTRICT	612	601	544	489	539	520	458	456	490
Sadar Subdivision	*561*	*549*	*498*	*439*	*483*	*475*	*414*	*426*	*485*
Suri	715	686	604	555	610	611	534	560	631
Sainthia	589	543	503	391	429	430	376	394	444
Rajnagar	393	406	359	322	353	354	309	324	366
Mahammadbazar	441	429	382	237	261	261	228	239	270
Dubrajpur	549	549	497	459	504	505	441	463	522
Khayrasol	583	580	520	409	450	450	394	413	465
Illambazar	482	486	478	371	408	408	357	374	422
Bolpur	601	527	483	375	412	413	361	378	427
Labhpur	638	642	595	589	654	614	550	537	630
Nanoor	581	615	539	664	729	688	571	557	654
Rampurhat Subdivision	*707*	*700*	*629*	*582*	*645*	*605*	*541*	*512*	*499*
Rampurhat	720	711	622	556	606	564	512	481	512
Mayureswar	625	638	564	602	661	638	588	604	690
Nalhati	736	713	662	604	650	602	538	486	390
Murarai	751	740	675	571	677	625	534	482	388
BANKURA DISTRICT	498	487	420	385	430	422	404	394	366
Sadar Subdivision	*499*	*484*	*408*	*359*	*386*	*368*	*358*	*345*	*289*
Bankura	899	891	696	586	603	567	535	486	447
Onda	437	445	389	345	394	402	400	390	350
Chhatna	516	473	389	356	366	344	325	295	272
Gangajalghati	494	501	392	385	380	372	358	347	319
Barjora	460	516	414	373	407	398	383	371	342
Mejhia	542	554	472	422	460	450	433	419	386
Saltora	488	470	397	333	364	356	342	331	305
Khatra	505	471	409	348	371	335	331	301	227
Indpur	544	504	425	361	385	347	343	312	235
Ranibandh	350	318	289	256	273	246	243	221	167
Raipur	484	444	406	367	390	352	348	317	239
Simlapal	417	403	336	299	322	319	310	274	237
Taldangra	376	352	309	286	327	334	332	324	290
Vishnupur Subdivision	*496*	*495*	*453*	*456*	*549*	*567*	*529*	*553*	*575*
Vishnupur	503	496	438	440	500	513	483	504	531
Jaypur	519	534	500	501	570	585	550	574	605
Kotulpur	562	542	514	515	587	602	566	591	622
Sonamukhi	418	424	365	365	416	427	401	419	441
Patrasair	491	493	460	461	525	539	506	528	557
Indas	520	514	489	506	791	836	757	800	783
MIDNAPUR DISTRICT	639	607	533	508	537	531	501	479	485
Sadar Subdivision	*519*	*471*	*422*	*411*	*458*	*450*	*441*	*480*	*513*
Midnapur	725	691	577	534	601	602	552	519	553
Salbani	320	292	266	276	279	285	260	251	238
Keshpur	462	437	397	389	448	466	451	514	586
Garhbeta	368	330	299	290	309	326	310	338	356
Debra	523	488	435	435	505	513	520	530	838
Sabang	616	594	592	630	743	773	769	1,016	1,081
Pingla	584	553	544	571	674	701	697	921	980
Khargpur (Local)	446	398	371	328	329	256	271	255	271
Khargpur (Town)	10,049	6,759	4,507	3,990	3,996	3,108	3,289	3,095	3,297
Narayangarh	388	369	339	368	451	433	430	473	474
Dantah	529	538	513	499	554	542	530	564	493
Mohanpur	563	568	518	525	583	570	558	593	519
Keshiari	381	361	331	253	310	298	296	325	326

DENSITY

STATEMENT I.32—contd.

	1951	1941	1931	1921	1911	1901	1891	1881	1872
MIDNAPUR DISTRICT—concld.									
Contai Subdivision	*812*	*829*	*694*	*673*	*678*	*662*	*598*	*523*	*485*
Contai	973	1,028	851	898	900	880	752	666	627
Khedgree	561	558	468	367	361	349	304	256	219
Bhagwanpur	1,004	942	820	905	890	862	794	689	642
Pataspur	729	765	688	683	739	718	677	632	587
Ramnagar	886	931	726	651	650	643	593	531	467
Egra	718	746	605	511	512	500	474	408	372
Tamluk Subdivision	*1,053*	*1,005*	*859*	*795*	*803*	*779*	*714*	*640*	*625*
Tamluk	1,511	1,405	1,151	1,052	1,069	1,043	943	564	545
Panskura	1,140	1,026	934	895	931	927	890	918	1,060
Moyna	1,215	1,110	944	882	896	874	790	472	456
Mahisadal	1,132	1,086	906	824	819	776	717	645	577
Nandigram	836	869	735	677	676	652	579	639	570
Sutahata	781	763	651	588	583	555	497	429	359
Ghatal Subdivision	*845*	*800*	*742*	*732*	*818*	*882*	*890*	*780*	*938*
Ghatal	943	940	844	793	928	1,025	1,030	936	1,144
Daspur	1,097	1,006	926	931	963	1,022	1,046	901	1,066
Chandrakona	573	541	525	527	629	678	673	583	706
Jhargram Subdivision	*389*	*359*	*328*	*295*	*309*	*304*	*274*	*245*	*206*
Jhargram	386	328	290	263	259	261	201	170	141
Jambani	393	362	332	301	296	595	230	194	162
Binpur	375	343	315	289	308	288	281	249	203
Gopiballavpur	486	467	429	379	407	407	379	349	300
Sankrail	442	424	390	344	370	370	345	317	273
Nayagram	297	285	262	231	249	249	232	213	183
HOOGHLY DISTRICT	1,286	1,140	922	894	902	868	856	838	958
Sadar Subdivision	*1,019*	*894*	*728*	*707*	*699*	*691*	*694*	*691*	*814*
Chinsurah	4,869	4,129	2,816	2,555	2,371	2,439	2,444	2,345	3,263
Dhaniakhali	893	828	696	722	902	892	901	881	1,094
Polba	758	685	600	603	407	402	406	419	303
Magra	2,084	1,670	1,156	879	816	839	841	807	1,123
Balagarh	850	654	583	564	573	559	588	607	767
Pandua	776	740	621	617	642	621	596	598	697
Serampur Subdivision	*2,085*	*1,813*	*1,433*	*1,379*	*1,319*	*1,181*	*1,143*	*1,006*	*1,126*
Serampur	6,298	5,104	3,689	3,300	2,618	1,818	1,532	1,350	1,153
Uttarpara	5,868	4,535	3,493	3,188	2,622	2,016	1,669	1,352	1,205
Bhadreswar	5,244	4,547	3,724	3,601	2,891	2,070	1,741	1,491	1,292
Haripal	1,184	1,033	821	820	853	797	782	698	918
Tarakeswar	1,325	1,140	902	893	929	868	851	760	1,000
Singur	1,683	1,451	1,187	1,132	1,141	1,140	1,188	1,040	1,046
Chanditala	2,043	1,952	1,610	1,554	1,610	1,559	1,546	1,337	1,492
Jangipara	1,129	1,060	836	870	925	911	947	871	1,094
Arambag Subdivision	*898*	*835*	*698*	*685*	*768*	*794*	*787*	*855*	*971*
Arambag	828	732	609	598	665	676	660	615	718
Pursura	1,508	1,434	1,061	996	1,107	1,125	1,099	1,024	1,196
Goghat	596	568	539	573	676	735	748	749	938
Khanakul	1,147	1,077	868	809	875	875	850	1,175	1,192
HOWRAH DISTRICT	2,877	2,661	1,962	1,781	1,685	1,519	1,363	1,134	1,064
Sadar Subdivision	*5,333*	*4,769*	*3,278*	*2,980*	*2,817*	*2,468*	*2,104*	*1,790*	*1,706*
Howrah Bantra Golabari Malipanchghora Sibpur (part)	43,537	38,082	22,578	19,609	17,980	15,795	11,687	9,102	8,426

STATEMENT I.32—contd.

	1951	1941	1931	1921	1911	1901	1891	1881	1872
HOWRAH DISTRICT—concld.									
Sadar Subdivision—concld.									
Sibpur (outside Howrah city)	738	822	516	756	693	609	451	351	324
Bally	6,297	4,781	3,208	2,578	2,573	1,679	954	847	784
Domjur	2,611	2,635	2,144	2,111	1,996	1,802	1,774	1,542	1,429
Jagacha	4,904	3,845	2,626	2,439	2,306	2,082	2,049	1,781	1,651
Sankrail	4,007	3,714	2,906	3,212	3,037	2,742	2,699	2,347	2,174
Jagatballavpur	1,596	1,624	1,269	909	886	823	758	689	713
Panchla	2,698	2,514	2,039	2,090	2,038	1,892	1,742	1,585	1,640
Uluberia Subdivision	*1,769*	*1,710*	*1,368*	*1,240*	*1,174*	*1,090*	*1,029*	*839*	*774*
Amta	1,632	1,665	1,333	1,282	1,256	1,183	1,156	779	782
Bagnan	1,966	1,810	1,466	1,257	1,226	1,144	1,087	1,004	918
Uluberia	2,087	1,955	1,526	1,303	1,135	1,003	907	841	723
Shyampur	1,382	1,292	1,056	921	885	845	778	689	604
Bauria	5,610	5,834	4,575	4,813	4,193	3,704	3,350	3,107	2,670
Presidency Division	**810**	**682**	**533**	**493**	**492**	**449**	**411**	**381**	**355**
24-PARGANAS DISTRICT	817	651	512	468	439	382	353	321	301
Sadar Subdivision	*1,368*	*1,107*	*855*	*776*	*725*	*633*	*568*	*518*	*503*
Bishnupur	1,743	1,591	1,280	1,176	1,114	1,019	960	870	901
Budge-Budge	2,675	3,004	2,237	2,006	1,745	1,497	1,314	1,137	1,075
Behala	5,641	3,457	2,192	1,885	1,778	1,519	1,501	1,344	1,482
Metiabruz	34,873	27,802	1,783	15,191	14,895	10,267	10,143	9,082	10,015
Tollyganj	7,601	3,149	1,705	1,551	1,371	1,147	1,133	1,015	1,119
Sonarpur	1,342	1,237	980	847	801	716	619	553	521
Baruipur	1,271	1,218	1,049	998	945	844	729	651	615
Jaynagar	701	624	523	468	443	386	325	272	244
Canning	544	435	380	334	316	282	244	218	206
Bhangar	921	914	743	748	709	620	544	631	544
Maheshtala	4,546	2,662	2,039	1,921	1,772	1,758	1,737	1,555	1,715
Basirhat Subdivision	*873*	*726*	*602*	*561*	*524*	*457*	*424*	*395*	*328*
Basirhat	1,373	1,245	1,060	988	982	865	782	760	718
Baduria	1,106	1,033	944	963	1,002	933	893	919	802
Swarupnagar	743	690	649	701	729	679	640	669	583
Haroa	846	750	627	615	519	426	393	322	227
Hasnabad	932	745	582	555	468	385	354	291	205
Sandeshkhali	639	437	320	223	188	155	142	117	83
Barasat Subdivision	*1,026*	*826*	*707*	*730*	*762*	*688*	*528*	*509*	*503*
Barasat	1,147	952	795	808	835	739	404	391	415
Habra	1,023	651	588	649	684	650	656	634	619
Deganga	920	829	736	749	798	708	715	686	618
Amdanga	762	675	608	625	646	572	313	303	322
Rajarhat	1,279	1,176	876	847	875	775	423	410	435
Bangaon Subdivision	*653*	*416*	*372*	*414*	*457*	*471*	*491*	*535*	*476*
Bangaon	674	416	378	415	461	476	495	535	483
Gaighata	602	416	357	412	447	460	482	534	458
Barrackpur Subdivision	*7,371*	*4,870*	*3,439*	*2,912*	*2,456*	*1,733*	*2,055*	*1,687*	*1,819*
Barrackpur	5,059	3,431	3,432	3,668	3,589	3,090	2,606	2,355	2,590
Dum Dum	5,901	2,685	1,956	1,583	1,660	1,456	3,327	1,949	2,117
Titagarh	10,875	8,689	5,914	6,596	5,588	2,298	1,939	1,752	1,926
Jagaddal	6,753	5,735	4,213	3,293	2,581	1,663	2,183	1,952	2,183
Naihati	4,846	3,318	2,119	1,496	1,183	992	1,303	1,165	1,302
Bijpur	6,786	3,764	2,778	2,071	1,612	807	1,060	947	1,060
Khardah	3,861	2,104	1,501	1,045	1,091	921	994	832	951
Noapara	12,513	7,853	5,049	4,755	3,905	3,329	3,497	2,950	3,244
Baranagar	20,049	12,597	8,751	7,156	5,703	2,594	4,452	3,894	3,586

STATEMENT I.32—contd.

	1951	1941	1931	1921	1911	1901	1891	1881	1872
24-PARGANAS DISTRICT—concld.									
Diamond Harbour Subdivision	*714*	*648*	*515*	*444*	*409*	*365*	*319*	*273*	*245*
Diamond Harbour	1,701	1,522	1,200	1,038	1,037	934	838	698	646
Falta	1,701	1,561	1,259	1,110	1,094	1,000	951	829	824
Mathurapur	477	414	314	255	207	170	139	119	103
Kakdwip	398	353	268	211	185	164	129	110	91
Sagar	229	200	140	87	76	67	53	45	37
Kulpi	1,136	1,066	912	834	728	646	510	432	360
Magrahat	1,631	1,556	1,273	1,201	1,192	1,110	1,059	913	838
24-Parganas forest division	1·5	0·8	0·5	..	..	1·3	3·8	..	..
CALCUTTA DISTRICT	78,858	65,250	35,299	31,921	30,879	28,494	22,954	20,065	20,712
	Per acre	Per acre	Per acre	Per acre	Per acre	Per acre	Per acre	Per acre	Per acre
Shampukur	300	258	156	133	124	110	86	67	67
Kumartuli	342	304	174	154	150	137	121	117	155
Burtolla	309	256	164	150	134	123	89	71	73
Sukea Street	334	302	165	169	147	128	106	74	76
Jorabagan	491	432	161	215	213	200	160	148	159
Jorasanko	458	397	117	220	229	204	160	126	139
Bara Bazar	240	244	83	147	136	141	92	93	105
Colootola	399	399	217	170	253	280	225	209	225
Muchipara	278	279	164	142	129	131	101	89	89
Bowbazar	276	251	142	183	169	183	153	146	159
Puddapukur	398	390	219	203	186	174	129	127	127
Waterloo Street	61	48	30	31	28	28	26	26	25
Fenwick Bazar	263	267	159	134	146	160	145	133	137
Taltola	355	361	197	162	165	165	150	134	139
Kalinga	133	102	74	62	60	89	70	63	68
Park Street	57	43	31	22	30	35	26	28	26
Baman Bustee	49	31	21	24	24	42	36	47	51
Tangra	46	31	13	11	11	9	8	6	6
Entally	170	141	84	73	72	58	50	40	41
Beniapukur	171	170	90	78	77	62	53	43	44
Ballyganj	96	71	35	25	20	13	11	10	11
Bhowanipur	195	160	100	72	68	62	53	48	46
Kalighat	277	234	97	70	66	60	52	46	45
Alipur	53	36	22	17	15	14	11	10	15
Ekbalpur	93	59	33	31	22	21	15	16	18
Watganj & Hastings	31	23	14	17	22	19	14	14	12
Tollyganj	142	96	30	21	17	11	10	9	10
Belliaghata	104	66	37	33	26	16	14	5	5
Manicktola	90	63	31	24	22	13	11	4	5
Belgachia	78	59	39	32	27	23	18	15	14
Satpukur	80	48	25	21	18	15	12	10	9
Cossipur	88	58	35	20	24	21	16	13	13
Fort William and Maidan	7	4	3	2	3	3	3	3	2
Port	5	8	9	5	7	8	7	7	4
Canals	4	6	7	3	12	16	8	11	6
	Per Sq. mile	Per Sq. mile	Per Sq. mile	Per Sq. mile	Per Sq. mile	Per Sq. mile	Per Sq. mile	Per Sq. mile	Per Sq. mile
NADIA DISTRICT	759	557	478	472	514	512	512	536	495
Sadar Subdivision	*726*	*593*	*502*	*475*	*523*	*530*	*522*	*538*	*495*
Krishnagar	1,141	661	547	518	560	538	551	574	495

STATEMENT I.32—contd.

	1951	1941	1931	1921	1911	1901	1891	1881	1872
NADIA DISTRICT—concld.									
Sadar Subdivision—concld.									
Nabadwip	2,273	1,348	994	849	918	881	903	941	811
Chapra	594	538	482	453	490	470	482	502	433
Krishnaganj	663	584	494	488	612	645	559	560	509
Nakasipara	584	478	406	378	401	405	403	427	400
Kaliganj	623	511	429	382	428	426	378	437	408
Tehatta	553	566	490	511	565	574	533	546	542
Karimpur	505	583	511	480	543	581	616	592	561
Ranaghat Subdivision	*818*	*492*	*436*	*465*	*492*	*481*	*495*	*530*	*494*
Ranaghat	888	480	421	439	470	445	452	493	466
Chakdah	934	508	439	492	499	499	539	562	528
Haringhata	583	423	375	434	440	440	476	496	466
Hanskhali	534	363	356	387	435	414	362	439	388
Santipur	1,062	734	629	612	653	661	720	718	672
MURSHIDABAD DISTRICT	828	792	661	591	649	638	604	592	586
Sadar Subdivision	*826*	*759*	*614*	*579*	*638*	*653*	*609*	*602*	*602*
Berhampur Town	1,096	874	672	635	687	691	622	620	632
Beldanga	1,056	1,009	800	756	818	824	741	738	753
Nawada	660	646	524	511	571	583	549	535	478
Hariharpara	601	565	469	480	547	586	565	586	592
Domkal	705	651	541	484	540	559	542	521	523
Jalangi	641	654	577	511	570	591	572	550	552
Lalbagh Subdivision	*755*	*697*	*594*	*515*	*563*	*558*	*587*	*571*	*588*
Murshidabad	740	718	630	595	644	648	583	581	593
Jiaganj	1,479	1,172	888	920	1,011	1,283	1,515	1,568	1,834
Nabagram	510	478	442	388	421	390	351	350	357
Lalgola	937	846	689	595	701	650	727	659	588
Bhagwangola	770	678	549	515	508	481	450	490	524
Raninagar	743	738	655	480	548	569	694	636	669
Jangipur Subdivision	*988*	*942*	*784*	*671*	*754*	*716*	*654*	*634*	*560*
Farakka	1,031	935	808	710	798	688	615	539	443
Samserganj	1,749	1,586	1,369	1,204	1,353	1,167	1,043	914	751
Suti	896	901	737	607	646	619	673	651	483
Raghunathganj	1,300	1,254	979	837	962	964	825	844	828
Sagardighi	559	531	476	407	468	469	401	411	403
Kandi Subdivision	*761*	*804*	*689*	*618*	*664*	*634*	*567*	*561*	*585*
Kandi	776	821	708	621	670	631	568	566	577
Khargram	669	669	586	525	560	521	457	441	498
Burwan	761	813	690	638	591	648	583	581	593
Bharatpur	836	910	771	687	733	728	655	653	666
MALDA DISTRICT	674	607	518	493	502	434	393	338	323
Sadar Subdivision	*674*	*607*	*518*	*493*	*502*	*434*	*393*	*338*	*323*
Englishbazar	954	849	708	649	748	715	762	672	677
Kaliachak	1,092	938	795	762	796	716	626	559	576
Malda	428	389	350	374	393	338	275	238	236
Habibpur	471	341	319	309	325	279	227	196	195
Ratua	754	670	558	527	551	451	415	308	252
Manikchak	635	530	462	452	472	386	361	268	219
Kharba	707	725	588	566	579	498	451	415	370
Harishchandrapur	675	667	551	480	381	318	320	294	263
Gajol	369	370	338	332	323	267	219	186	190
Bamangola	498	452	392	388	378	312	256	218	222

STATEMENT I.32—concld.

	1951	1941	1931	1921	1911	1910	1891	1881	1872
West Dinajpur District	520	421	378	354	368	329	306	294	290
Balurghat Subdivision	*560*	*429*	*375*	*334*	*350*	*305*	*264*	*248*	*243*
Hili	1,141	748	650	608	626	548	442	415	393
Balurghat	706	463	402	376	387	339	274	257	243
Kumarganj	505	415	377	259	267	234	189	177	168
Tapan	415	355	293	289	308	268	250	234	236
Gangarampur	483	417	381	339	361	314	292	274	276
Raiganj Subdivision	*491*	*415*	*380*	*368*	*381*	*347*	*336*	*328*	*325*
Bansihari	382	373	348	330	349	303	291	286	274
Kushmandi	470	444	433	417	441	382	368	362	346
Kaliaganj	560	511	506	490	500	452	432	407	406
Hemtabad	469	388	371	362	371	360	355	358	365
Raiganj	547	352	317	319	327	318	313	316	322
Itahar	490	444	353	335	342	309	295	278	278
Jalpaiguri District	385	356	311	202	279	229	183	133	85
Sadar Subdivision	*421*	*405*	*360*	*348*	*354*	*328*	*278*	*210*	*137*
Jalpaiguri	622	541	461	431	462	444	447	406	293
Rajganj	210	208	201	224	228	211	220	238	192
Mainaguri	351	374	311	324	327	299	228	141	77
Nagrakata	397	375	370	356	364	329	251	155	85
Dhupguri	512	469	407	366	369	338	258	159	87
Mal	447	482	425	424	420	389	303	187	102
Matiali	534	463	449	363	360	334	260	160	88
Alipur Duars Subdivision	*342*	*297*	*253*	*226*	*188*	*111*	*67*	*41*	*49*
Madarihat	405	364	319	273	244	159	101	62	34
Falakata	454	427	383	366	328	214	135	83	46
Kalchini	249	226	181	142	113	62	37	23	12
Alipur Duars	441	354	300	278	222	123	72	44	24
Kumargram	249	214	185	177	142	78	46	28	16
Darjeeling District	371	314	266	236	221	208	186	129	79
Sadar Subdivision	*470*	*408*	*330*	*295*	*284*	*255*	*219*	*149*	*74*
Darjeeling	1,564	1,206	1,091	969	934	837	719	476	242
Jore Bungalow	513	568	374	318	306	274	236	156	79
Pulbazar	508	402	340	307	296	265	228	151	77
Sukhiapokri	208	197	153	122	117	105	90	60	30
Rangli Rangliot	264	227	184	184	177	159	137	90	46
Kurseong Subdivision	*400*	*365*	*317*	*246*	*251*	*275*	*272*	*164*	*83*
Kurseong	392	339	298	231	236	259	256	154	78
Mirik	429	454	381	295	302	331	327	197	100
Siliguri Subdivision	*437*	*338*	*301*	*284*	*271*	*265*	*274*	*237*	*180*
Siliguri	549	341	289	273	260	254	263	228	173
Kharibari	317	309	295	279	266	259	268	232	176
Phansidewa	367	368	332	315	300	293	303	263	199
Kalimpong Subdivision	*229*	*194*	*167*	*147*	*121*	*102*	*65*	*31*	*16*
Kalimpong	325	271	233	211	174	145	93	44	23
Garubathan	98	88	77	61	50	42	27	19	7
Cooch Behar District	507	485	447	448	448	429	438	456	403
Tufanganj	436	423	380	370	358	328	326	294	227
Dinhata	650	625	580	578	579	561	572	607	550
Sitai	394	462	434	432	433	419	428	453	411
Cooch Behar	603	527	466	465	459	427	454	489	439
Sitalkuchi	453	464	436	449	443	436	447	480	435
Mathabhanga	425	414	395	397	404	397	408	437	396
Mekliganj	402	404	421	435	457	445	453	463	401
Haldibari	540	506	432	449	459	437	403	411	356
Chandernagore	**13,380**	**10,264**	**7,309**	**6,816**	**6,781**	**7,193**	..	..	..
Sikkim State	**50**	**44**	**40**	**30**	**32**	**21**	**11**	..	..

75. It will be useful first to classify all police stations according to character and certain broad density classes. Since 610 is the general average rural density for the State as a whole, this figure may be made a dividing line, and 1,050 another, because the latter figure affords comparison with other censuses. Statement I.33, thus classifies all police stations of the State according to three characters and three classes of density.

STATEMENT I.33

Density and character of police stations in West Bengal, 1951

State and District	Total No. of P. S.	Entirely rural P. S. with density less than 610	Entirely rural P. S. with density between 610 and 1,050	Entirely rural P.S. with density over 1,050	Non-industrial P. S. containing towns with density less than 610	Non-industrial P. S. containing towns with density 610—1,050	Non-industrial P. S. containing towns with density over 1,050	Industrial P. S. with density between 610 and 1,050	Industrial P. S. with density over 1,050
West Bengal	**280**	**86**	**43**	**26**	**22**	**23**	**17**	**2**	**61**
Burdwan Division	*125*	*42*	*20*	*19*	*10*	*11*	*2*	*2*	*19*
Burdwan	24	7	5	..	..	4	..	2	6
Birbhum	14	5	4	..	3	2	..	..	..
Bankura	19	14	..	..	4	1	..	..	..
Midnapur	34	15	7	4	3	3	1	..	1
Hooghly	18	1	4	7	..	1	..	..	5
Howrah	16	..	..	8	..	..	1	..	7
Presidency Division	*155*	*44*	*23*	*7*	*12*	*12*	*15*	..	*42*
24-Parganas	40	4	6	5	1	4	6	..	14
Calcutta	28	..	..	..	..	..	..	..	28
Nadia	13	6	2	..	..	2	3	..	..
Murshidabad	21	3	11	1	..	2	4	..	..
Malda	10	3	4	1	1	1	..	..	..
West Dinajpur	11	8	..	..	1	1	1	..	..
Jalpaiguri	12	10	..	..	1	1	..	..	..
Darjeeling	12	8	..	..	3	..	1	..	..
Cooch Behar	8	2	..	..	5	1	..	..	..

76. Thus only 104 police stations of which 33 are in Calcutta and Howrah municipal areas contain a population with a density of more than 1,050 persons to the square mile. Of the remaining 71 police stations 26 are entirely rural, 17 are non-industrial with one non-industrial town each, and 28 are industrial. These 28 police stations together with two others, Salanpur and Barabani (both in the Asansol subdivision of Burdwan) which have densities less than 1,050 to the square mile, comprise the 30 industrial police stations outside Calcutta and Howrah mentioned before. A police station has been taken as the unit of area for this analysis for both industrial, non-industrial and rural areas with densities over 1,050, because it may be reasonably argued that wherever this density mark is exceeded the police station as a whole contributes to the economic life of the area, by way of supply of either agricultural or industrial labour. This holds especially for industrial police stations where a great proportion of the industrial population, as in Asansol subdivision of Burdwan and the industrial belts of Hooghly, Howrah and 24-Parganas, live in the surrounding villages of their industrial towns. But as Union Table E will show, the actual area in which densities are over 1,050 to the square mile is less than the areas of police stations having corresponding density floors. Further examination of the concentration of population according to density of police stations is therefore necessary and Statement I.34 classifies by the district those police stations that have a density of over 1,050 per square mile, by area, population and character.

STATEMENT I.34

Police stations with densities over 1,050 per square mile, arranged by character, population, area and actual density, 1951

(a) Entirely rural police stations

Name of police station	Name of district	Population	Area (Sq. miles)	Density in 1951
1 Amta	Howrah	230,254	141·1	1,632
2 Kaliachak	Malda	226,184	207·1	1,092
3 Magrahat	24-Parganas	191,698	117·5	1,631
4 Panskura	Midnapur	176,405	154·7	1,140
5 Beldanga	Murshidabad	151,339	143·3	1,056
6 Bishnupur	24-Parganas	143,583	82·4	1,743
7 Mahisadal	Midnapur	141,390	124·9	1,132
8 Daspur	Do.	140,339	127·9	1,097
9 Kulpi	24-Parganas	140,187	123·4	1,136
10 Shyampur	Howrah	138,195	100·0	1,382
11 Khanakul	Hooghly	130,097	113·4	1,147
12 Chanditala	Do.	128,912	63·1	2,043
13 Bagnan	Howrah	124,463	63·3	1,966
14 Sankrail	Do.	99,384	24·8	4,007
15 Domjur	Do.	98,168	37·6	2,611
16 Singur	Hooghly	95,753	56·9	1,683
17 Falta	24-Parganas	89,112	52·4	1,701
18 Haripal	Hooghly	84,312	71·2	1,184
19 Jagatballavpur	Howrah	78,995	49·5	1,596
20 Panchla	Do.	73,920	27·4	2,698
21 Jangipara	Hooghly	71,438	63·3	1,129
22 Moyna	Midnapur	69,639	57·3	1,215
23 Tarakeswar	Hooghly	61,366	46·3	1,325
24 Pursura	Do.	58,508	38·8	1,508
25 Rajarhat	24-Parganas	50,656	39·6	1,279
26 Jagacha	Howrah	33,838	6·9	4,904
	TOTAL	3,028,135	2,134·1	1,419

(b) Non-industrial police stations each containing a non-industrial town, 1951

Name of police station	Name of district	Population	Area (Sq. miles)	Density	Name of town
1 Uluberia	Howrah	158,587	76·0	2,087	Uluberia
2 Krishnagar	Nadia	157,981	138·5	1,141	Krishnagar
3 Tamluk	Midnapur	142,038	94·0	1,511	Tamluk
4 Basirhat	24-Parganas	137,951	100·5	1,373	Basirhat
5 Berhampur Town	Murshidabad	137,823	125·7	1,096	Berhampur
6 Raghunathganj	Do.	132,633	102·0	1,300	Jangipur
7 Diamond Harbour	24-Parganas	128,741	75·7	1,701	Diamond Harbour
8 Barasat	Do.	119,442	104·1	1,147	Barasat
9 Baruipur	Do.	105,321	82·8	1,272	Baruipur
10 Nabadwip	Nadia	91,380	40·2	2,273	Nabadwip
11 Baduria	24-Parganas	89,592	81·0	1,106	Baduria
12 Sonarpur	Do.	88,413	65·9	1,342	Rajpur
13 Santipur	Nadia	79,664	75·0	1,062	Santipur
14 Samserganj	Murshidabad	74,324	42·5	1,749	Dhulian
15 Darjeeling	Darjeeling	63,171	40·4	1,564	Darjeeling
16 Hili	West Dinajpur	38,787	34·0	1,141	Hili
17 Jiaganj	Murshidabad	29,130	19·7	1,479	Jiaganj-Azimganj
	TOTAL	1,774,978	1,298·0	1,367	

STATEMENT I.34—concld.

(c) Industrial police stations, 1951

Name of police station	Name of district	Population	Area (Sq. miles)	Density	Name of Town
(1—28) Calcutta	Calcutta	2,548,677	32·32	78,858	Calcutta
(29—33) Howrah	Howrah	433,962	10·41	41,687	Howrah
34 Tollyganj	24-Parganas	194,583	25·6	7,601	Tollyganj
35 Baranagar	Do.	154,377	7·7	20,049	Baranagar, Kamarhati
36 Jagaddal	Do.	152,624	22·6	6,753	Bhatpara
37 Budge-Budge	Do.	147,123	55·0	2,675	Budge-Budge
38 Serampur	Hooghly	141,071	22·4	6,298	Serampur, Rishra, Baidyabati
39 Khargpur Town	Midnapur	129,636	12·9	10,049	Khargpur town
40 Metiabruz	24-Parganas	129,031	3·7	34,873	Garden Reach
41 Kulti	Burdwan	122,212	32·5	3,760	Kulti, Barakar Neamatpur, Disergarh
42 Titagarh	24-Parganas	121,798	11·2	10,875	Titagarh, Barrackpur
43 Asansol	Burdwan	115,485	30·7	3,762	Asansol
44 Behala	24-Parganas	113,379	20·1	5,641	South Suburbs
45 Jamuria	Burdwan	111,550	90·6	1,231	
46 Bally	Howrah	110,189	17·5	6,297	Bally
47 Bijpur	24-Parganas	105,185	15·5	6,786	Kanchrapara, Halisahar
48 Dum Dum	Do.	95,590	16·2	5,901	South Dum Dum, North Dum Dum, Dum Dum
49 Maheshtala	Do.	93,195	20·5	4,546	Batanagar
50 Ondal	Burdwan	86,008	71·4	1,205	Ondal
51 Khardah	24-Parganas	81,464	21·1	3,861	Panihati, Khardah
52 Bhadreswar	Hooghly	80,753	15·4	5,244	Champdani, Bhadreswar
53 Naihati	24-Parganas	75,596	15·6	4,846	Naihati
54 Noapara	Do.	75,077	6·0	12,513	Ichhapur Defence Estate, Garulia, North Barrackpur
55 Raniganj	Burdwan	71,495	32·8	2,180	Raniganj
56 Chinsurah	Hooghly	70,601	14·5	4,869	Hooghly—Chinsurah
57 Uttarpara	Do.	65,726	11·2	5,868	Uttarpara, Kotrung, Konnagar
58 Hirapur	Burdwan	59,934	24·6	2,436	Burnpur
59 Magra	Hooghly	52,108	25·0	2,084	Bansberia
60 Bauria	Howrah	31,418	5·6	5,610	Bauria
61 Barrackpur	24-Parganas	16,189	3·2	5,059	Barrackpur cantonment
	TOTAL	5,786,036	693·8	8,340	

NOTE—Salanpur (Burdwan) having a population of 47,354 and containing the new locomotive town of Chittaranjan is not included in this list as it has a density of less than 1,050. For similar reasons Barabani (Burdwan) with a density of 837 is excluded although it is an industrial police station. Chandernagore, although an industrial town with a density of 13,380, is here excluded as falling outside of West Bengal.

77. Thus out of a total area of 30,775 square miles, only 4,126 or 13·4 per cent of the State's area covering 104 police stations containing 62 cities and towns have densities over 1,050 to the square mile. On the other hand, these 4,126 square miles or 13·4 per cent. of West Bengal's area contain as many as 10,589,149 persons or approximately 42·7 per cent. of the State's entire population. Almost by contrast, 26,649 square miles or 86·6 per cent. of the State's area contain 14,221,159 persons or 57·3 per cent. of the State's population in the remaining 176 police stations which contain 51 non-industrial towns. The 26 entirely rural police stations dispose of 6·9 per cent. of the State's area and 12·2 per cent. of the population, the average density being 1,419 to the square mile. Sankrail and Jagacha, having the high densities of 4,007 and 4,904 respectively in this group, have been called rural police stations by nomenclature as they have neither big nor important industries in them nor any town, although their population is mainly industrial, living in typical industrial colonies, feeding the factories in Howrah, Bally and Bauria. Barring them, no rural police station has a density exceeding 2,698. The 17 non-industrial police stations have as low an average density as 1,367, lower in fact than that of the 26 entirely rural police stations, although they contain 17 non-industrial towns between them. Together they dispose of an area of 1,298 square miles or 4·2 per cent. of West Bengal's area and 7·2 per cent. of the population amounting to 1,774,978 persons. It is important to note at this stage that even excluding Sankrail and Jagacha, the average density of the remaining 24 (26 less 2) high density rural police stations is higher, being 1,505, than the average density of non-industrial police stations, each of which contains such density-increasing elements as towns. How these particular rural police stations can support such large densities may provide much interesting study. It will also be presently examined whether their densities are steadily on the increase since 1872 or have fluctuated from decade to decade. If all or some of them at least have steadily increased in density in eighty years or even remained constant during them, it may be presumed that there is some welcome feature in their agricultural economy, absent in the rest, capable of supporting such thick populations. It is the 61 industrial police stations, the sum of whose areas is the smallest, of the three categories here examined, being only 694 square miles or 2·3 per cent. of the area of the State, yet whose population is the largest, being 5,786,036 persons or 23·3 per cent. of the total population, that have the thickest density. These 61 police stations have an average density of 8,340 persons to the square mile and contain 45 cities and towns. Of them only six police stations have a density less than 3,000 per square mile: these are Budge Budge (2,675), Hirapur (2,436), Raniganj (2,180), Magra (2,084), Jamuria (1,231) and Ondal (1,205).

78. The uneven distribution of population density is so interesting and can be so readily and directly correlated to livelihood that it will well repay to divide each district into two zones: (a) those police stations which have densities under 750; and (b) those that are above that mark. This division will indicate roughly how much of the State's area and population are on either side of its general average density of 806, and, on each side of this middle line the relation between area and population. Subsidiary table I.1 furnishes such a comparison but Statement I.35 elaborates the density group 750 and above further, by dividing the population in it into several density classes: 750-900, 900-1,050, 1,050-3,000, and 3,000 and over groups.

STATEMENT I.35

Area and population, actual and percentage, by density of police stations having densities over 750 persons per square mile, 1951

(Figures in italics under larger figures indicate percentage of area of the class to total area, and population of the class to total population)

A—denotes area in square miles P—denotes population

Place	750—900		900—1,050		1,050—3,000		3,000 & Over	
	A	P	A	P	A	P	A	P
West Bengal	2,597 *8·37*	2,126,359 *8·57*	1,676 *5·40*	1,600,424 *6·45*	3,757 *12·10*	5,258,062 *21·19*	425 *1·37*	5,389,546 *21·73*
Burdwan Division	*1,647* *10·96*	*1,270,188* *11·44*	*901* *6·38*	*867,298* *7·81*	*1,751* *12·40*	*2,583,874* *23·27*	*204* *1·45*	*1,433,943* *12·92*
Burdwan	295 *10·90*	235,264 *10·73*	475 *17·54*	451,279 *20·59*	219 *8·11*	328,087 *15·01*	63 *2·34*	237,697 *10·85*
Birbhum	138 *7·91*	103,470 *9·70*	..	..	..	..	..	..
Bankura	158 *5·96*	141,850 *10·75*	..	..	..	..	..	..
Midnapur	435 *8·28*	302,568 *10·79*	426 *8·11*	416,019 *12·38*	559 *10·64*	669,811 *19·95*	13 *0·24*	120,636 *3·86*
Hooghly	521 *43·16*	427,086 *27·47*	..	..	478 *39·56*	682,494 *43·91*	63 *5·26*	358,161 *23·04*
Howrah	..	..	..	..	495 88·30	902,582 56·02	65 11·56	708,459 43·96
Presidency Division	*1,050* *6·20*	*856,171* *6·24*	*775* *4·68*	*733,126* *5·35*	*2,006* *11·85*	*2,674,188* *19·51*	*221* *1·31*	*3,955,603* *28·86*
24-Parganas	174 *3·10*	143,212 *3·11*	468 *8·29*	443,512 *9·62*	980 *17·38*	1,431,819 *31·07*	189 *3·35*	1,408,088 *30·55*
Calcutta	..	..	..	..	0·43 1·30	1,162 0·05	32 *98·70*	2,547,515 *99·95*
Nadia	171 *11·34*	151,852 *13·26*	126 *8·34*	117,495 *10·26*	254 *16·81*	329,025 *28·74*	..	..
Murshidabad	551 *26·59*	445,273 *25·95*	83 *4·03*	78,247 *4·56*	490 *23·65*	584,040 *34·04*	..	..
Malda	154 *11·04*	115,834 *12·35*	98 *7·07*	93,872 *10·01*	207 *14·88*	220,184 *24·13*	..	..
West Dinajpur	..	..	..	..	34 *2·45*	38,787 *5·39*	..	..
Jalpaiguri	..	..	..	..	..	..	..	..
Darjeeling	..	..	..	..	40 *3·37*	63,171 *14·19*	..	..
Cooch Behar	..	..	..	..	..	..	3·73 *100·00*	49,909 100·00
CHANDERNAGORE	..	..	..	..	..	..		
SIKKIM		..	..	..	..	..	..	..

79. It will be noticed that in respect of only those police stations whose densities are between 750 and 1,050 is there a close correspondence between the percentages of population and area; or, in other words it is only in police stations of these densities that the distribution of population is matched to area. The farther away one moves from this norm the greater the disproportion between area and population until at the two extreme ends, on the one hand 5·81 per cent. of the State's area contain as little as 0·08 per cent. of its population with an approximate density of 100, and on the other, 1·37 per cent. of the State's area contain as much as 21·73 per cent. of its population with an average density of about 12,700 persons to the square mile.

80. Before passing on to variations in density in individual districts, a brief discussion on the growth of density in the twentysix rural thanas of Statement I.34 (*a*) will be instructive. They are treated here regionally, by the district to which they belong, instead of in the order they are listed in the statement.

81. Panskura, Mahisadal and Moyna police stations belong to Tamluk subdivision, while Daspur belongs to Ghatal subdivision of Midnapur. The first three are almost contiguous, interrupted by Tamluk, which has a similar density and homogeneity. Panskura has always had a high density: in 1872 it had 1,060 but between 1881 and 1931 it went down and varied between 890 and 934: malarial epidemics were responsible for this reduction but the land is fertile and well-irrigated: the main Midnapur High Level irrigation canal and the Cossye river pass through the middle of it. Moyna and Mahisadal nearer the sea are especially fertile rice-producing areas well drained and irrigated. Moyna is divided in the middle by the Cossye and Haldi rivers and bounded on the south by the Kalighai river, while Mahisadal gets the river trade of the Rupnarayan

which bounds its east, the Hijli Tidal canal runs right across the police station, and the Haldi runs its south-western boundary. Moyna has steadily increased without interruption from 456 in 1872 by rapid stages except for 1921 when the influenza epidemic reduced the density slightly; Mahisadal starting from 577 in 1872 had no interruption in its steady progress. Daspur has always had a very thick population as a centre of trade with a rich agricultural hinterland. It is flanked on the east by the Rupnarayan noted for its river traffic. Besides the Silai, it has several canals running through it. Even in 1872 its density was 1,066 but it was affected by malaria and the influenza epidemic between 1911 and 1931: in 1931, its density went as low as 926. Panskura and Moyna have thriving subsidiary cottage industries like mat-making, coir and rope, and handloom, while Mahisadal raises more than one crop on the same land, has cocoanut groves and sends out short-term colonisers to the Sundarbans.

82. In Hooghly, the density of Khanakul was even higher in 1872 than in 1951: it was as much as 1,192. But between 1891 and 1931 it suffered from malaria and depopulation and the density was as low as 809 in 1921 after the influenza epidemic. It benefits from the river trade of the Rupnarayan which skirts its western boundary: besides, it is very well-cultivated, and cottage industries are still comparatively prosperous. Together with Pursura it makes a compact block of high density and similar geographical, agricultural and population characteristics west of the Damodar. Singur, Tarakeswar, and Haripal, very dense in 1872, went down badly between 1872 and 1881 but were rescued by the opening of the Eden Canal in 1881 and the Sheoraphuli-Tarakeswar railway line in 1885 which gave a fillip to their agriculture and gave the population stamina to resist malaria. The railway line also made it possible for a large population to live in them while working in the city and industrial towns every day for their livelihood as daily passengers. They comprise a compact group of high density showing similar fluctuations. In a way Khanakul, Pursura, Tarakeswar, Haripal and Singur form the compact central zone of the district. To the south of this zone is another consisting of Chanditala and Jangipara bordering the district of Howrah, of which the one nearer to the metropolis, Chanditala, has a density almost double that of Jangipara. Both have had high densities since 1872, but Jangipara suffered more from malaria, as a result of which its density touched as low as 836 in 1931. They were greatly benefited by the Dankuni drainage scheme in 1873, the Rajapur drainage scheme after 1880, the Eden Canal in 1881, and the re-excavation of the Kausiki in 1910 and were opened up early in 1897-98 by the Howrah-Sehakhala, the Chanditala-Janai and the Howrah-Champadanga suburban railways. They have good and fertile agricultural lands, and a numerous population of daily passengers to Calcutta who yet live in their villages for comfort and economy.

83. Jagacha and Sankrail, to the west and south-west of Howrah City, are almost suburbs, and the reasons for their high density have been discussed. But the whole of Howrah district has fairly fertile rice plains and vegetable orchards and acts as a large suburb of Howrah city, Bally and Calcutta. The district was greatly benefited at an early date by the Howrah and Rajapur drainage schemes in 1885 and 1894-95 respectively which rehabilitated a total of 320 square miles of agricultural land out of the district's gross area of 560. The Bengal Nagpur Railway, the Howrah Amta Railway, the Howrah-Champadanga and Howrah-Sehakhala Railways, all opened in 1897-98, gave the district very good and fast suburban transport and helped every police station to preserve and improve its density steadily and rapidly. The district contributes a very numerous crop of daily passengers to Howrah and Calcutta, and there is no doubt that good cultivation

is even more substantially assisted by cash earnings in the metropolis.

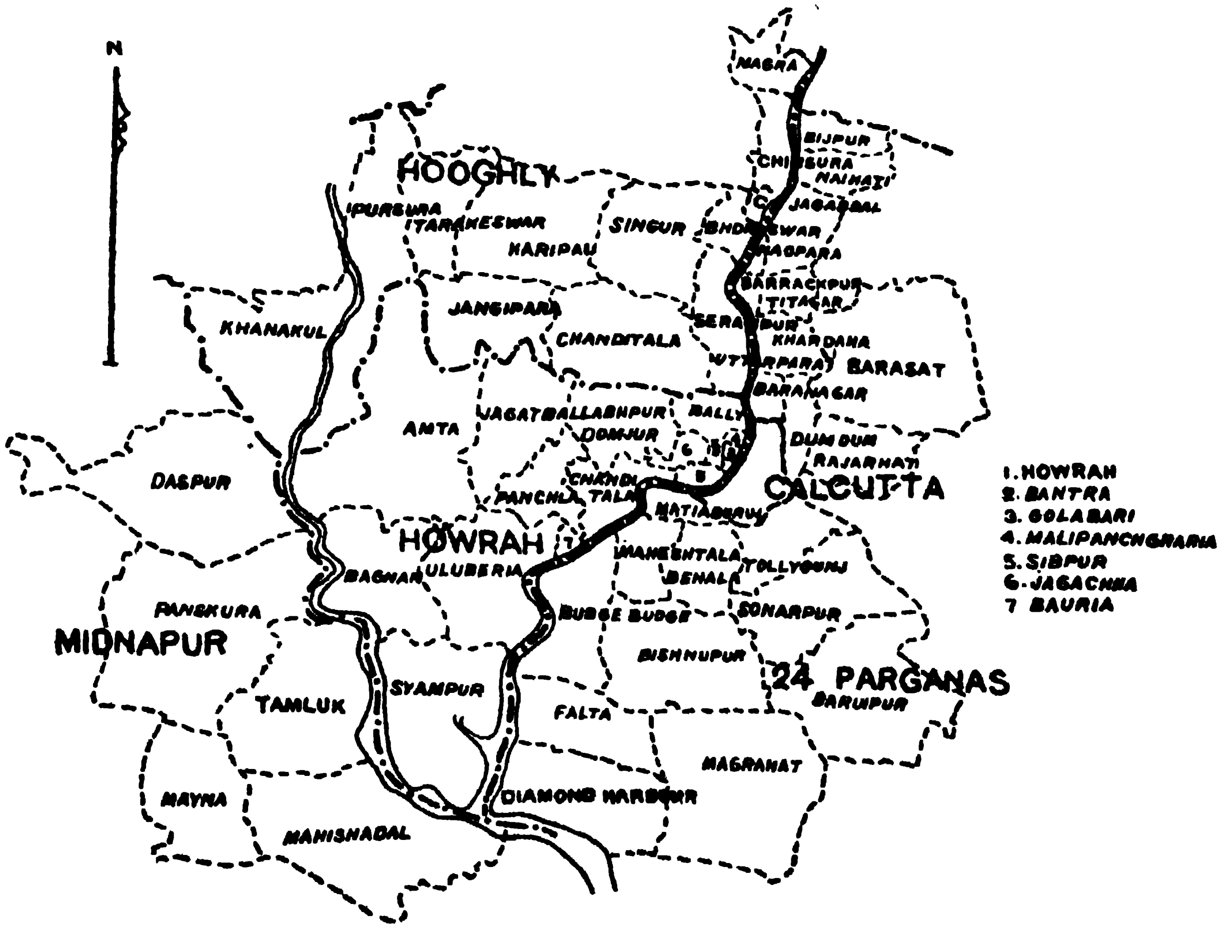
84. Similar in character to the police stations of Howrah are Magrahat, Bishnupur, Kulpi, and Falta. They were opened up very early by the East Indian Railways between 1862 and 1890 and again in 1928. This and the fertility of the soil which was greatly recruited in 1908-09 by (i) the Magrahat drainage scheme which drained and threw open to profitable cultivation a marshy and feverish tract of 290 square miles, and by (ii) the construction of a sluice near Diamond Harbour in 1909 which reclaimed another 100 square miles for rice cultivation from swamps, coupled with the facilities of trade, commerce and fisheries that they enjoy, and a numerous population who live with their families in these police stations but work as daily passengers in the city and suburbs for their living, have helped all the thanas to increase their densities rapidly and steadily. The four police stations make a compact and homogeneous mass south-west of Calcutta, excellently served by fast-moving suburban railways; while Rajarhat the fifth rural police station in 24-Parganas is immediately to the north-east of Calcutta, containing excellent fisheries and orchards, and served by the Barasat-Basirhat Light Railway opened in 1913-14.

85. In Murshidabad Beldanga is one of the most fertile police stations in the district, commanding the low Kalantar clay lands, and the alluvium of the Bhagirathi. It used to have a sugar mill formerly, which shut down, but still supplies large quantities of sugarcane to the Ramnagar Sugar Mill in Plassey (Nadia). It has large orchards of fruit trees and kitchen vegetables, and land under mulberry for silk. Except for 1921 when, badly distressed by the influenza epidemic, its density went as low as 756, it has had steady though not very spectacular progress from 753 in 1872 to 1,056 in 1951.

86. The only other rural police station in the State having a density over 1,050 is Kaliachak in Malda which is on the alluvial side of the Ganges, receives a rich layer of silt every year and is highly fertile, the great bulk of the land bearing three crops a year, and is peopled by a prolific and healthy community, the Shershabadia Muslims. The district has the largest and most profitable cottage industry in the State, silk-rearing and weaving, in which all the population, not otherwise engaged in agriculture, finds profitable employment. Except for 1921, when it too was affected by the influenza epidemic, it has steadily and rapidly increased in density. An examination of these twentysix rural police stations thus leads to instructive conclusions. All of them are exceptionally fertile, well drained, well irrigated and well communicated by road and river, and, besides agriculture, offer facilities for subsidiary earnings. The nearer the density to the lower limit of 1,050 the greater, generally speaking, is the dependence on agriculture, and the higher away the density from the lower limit, the better the facilities offered by non-agricultural pursuits, and the more satisfactory the distribution of the population between agriculture, industry and services. In rural police stations with a density between 1,500 and 2,500 both agriculture and the complementary occupations are in their best state and in the happiest of mutually supporting relations. In the next place, it is a notable feature common to all of them that each has a homogeneous population and that none of them has any special problem of social, agricultural, or economic stress and strain or adjustment usually attendant on a heterogeneous stock. Even in the three police stations of 24-Parganas, which have seen immigration, the immigrants are of the same predominantly Mahisya stock as the natives, and in Kaliachak in Malda which has seen a great deal of immigration from the north of Murshidabad, the immigrants are of the same stock of Shershabadias as the native population: in fact it will be no exaggeration to suggest that almost the entire human

stock of Kaliachak has been transplanted from Murshidabad. In short, every compact area just discussed has a homogeneity of agricultural method and cultivation, of social, cultural and even ethnic pattern causing a minimum of stress and strain in the local fabric. Fourthly, in Midnapur, Hooghly and Howrah districts the density has remained more or less steady in these police stations, if we compared 1872 with 1951, with comparatively small increases, which indicates that even in these areas of high density a saturation point has nearly been reached and a balance struck between the soil and human life, where the land seems to resist further increase.

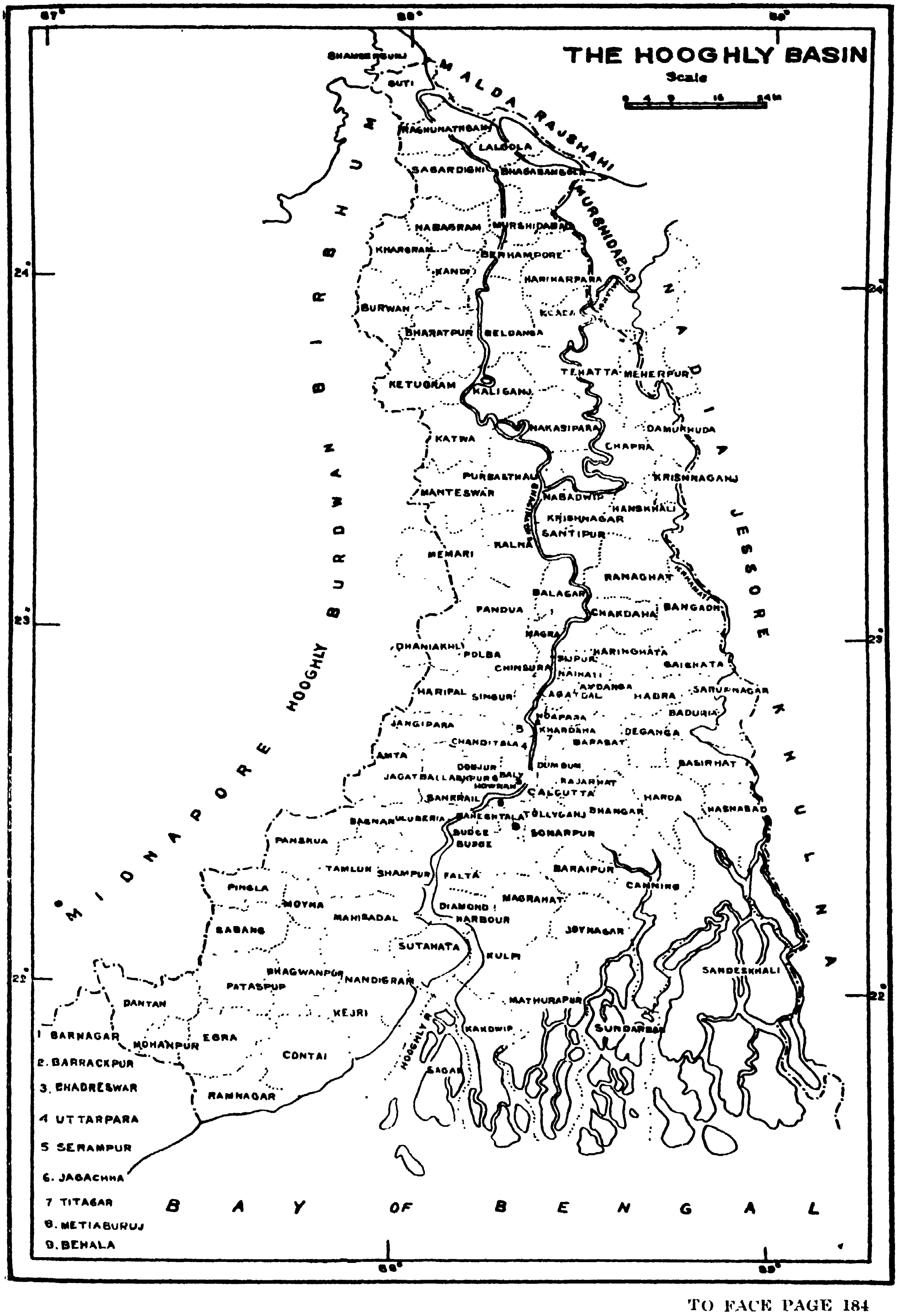
87. As for the non-industrial police stations each with a town in it, it will be noticed that only Uluberia (2,087), Tamluk (1,511), Basirhat (1,373), Raghunathganj (1,300), Diamond Harbour (1,701), Nabadwip (2,273), Sonarpur (1,342), Samserganj (1,749), Darjeeling (1,564) and Jiaganj (1,479) have densities in excess of 1,150. Of these Uluberia in Howrah and Tamluk in Midnapur are placed in the middle of the high density rural thanas of Panskura, Moyna and Mahisadal of Midnapur on the west, and Daspur (Midnapur) and the Hooghly and Howrah rural thanas on the north and east. This area therefore makes a very compact land and water mass of 1,996 square miles, very thickly populated but with a comparatively rich soil, good irrigation, and well served by rail, road and water; in many respects this tract together with the other compact block of Bishnupur, Falta, Magrahat, Diamond Harbour and Kulpi in 24-Parganas across the river Hooghly greatly resembles the district of Dacca in East Bengal. The inset map shows the lie of this area, its communications, waterways and canals.



On account of the facilities the two towns in Tamluk and Uluberia offer, density in both rose more rapidly after 1872 than in the rest, until the pace slowed down rather abruptly in 1941. Basirhat, in 24-Parganas, in spite of the Ichhamati river affording facilities of river trade, has grown slowly, and more so since 1941, although it has received a sizeable Displaced population. Sonarpur, a suburban police station south of Calcutta in 24-Parganas and Diamond Harbour have not made much headway since 1941. Krishnagar in Nadia has swelled only recently by virtue of the large camp of Displaced persons in Dhubulia and colonies of them in town: its density in 1941 was as low as 661. Raghunathganj in Murshidabad has not made much progress since 1941 in spite of a numerous Displaced population. Nabadwip in Nadia, whose density was 1,348 in 1941 has received the largest Displaced population for any West Bengal town of its size which is responsible for its present high density. Samserganj in Murshidabad has a trading and manufacturing town Dhulian on the Ganges, and together with Farakka has been steadily exporting Sershabadias to the alluvial police stations of Malda. Besides, it is the same type of country as Kaliachak in Malda, with a fertile soil, good husbandry, plenty of water and irrigation and has therefore followed the same pattern of growth as the latter. Darjeeling has grown vicariously on Nepal and Sikkim while Jiaganj is now a flourishing jute centre again, owing to the worsting of Dhulian by the Ganges and on account of a large immigrant non-Bengali and Displaced population.

88. Thus it will be noticed that even in non-industrial police stations with densities over 1,050, in spite of such potentialities as towns in each capable of offering employment and drawing off surplus population from the land, the population is less dense on the average than the 26 purely agricultural and rural police stations of the first group. If the towns were expunged from the former their densities would at once fall to well below 750 per square mile in Berhampur Town, Raghunathganj, Nabadwip and Santipur thanas which bereft of their towns would be reduced to agriculture alone. Basirhat, Diamond Harbour, Barasat, Baruipur, Baduria and Sonarpur police stations all in 24-Parganas, robbed of their towns, would still hover between 750 and 1,050 per square mile because of their suburban character in the vicinity of Calcutta, which draws a large crop of daily passengers earning their living in the city and satellite industrial towns and the facilities of trade, commerce, fishing and orchardry they afford in addition to agriculture. Hili and Jiaganj police stations are so small that they would have no independent character if the towns and their fringes were taken away, but Darjeeling, even without the town, would still have numerous tea gardens where the populations could obtain employment. Thus in all these fourteen police stations the bulk of the population, that is the difference between their total and rural densities, find sustenance and employment in pursuits other than agriculture, and it is these avenues, and not agriculture, which have practically raised their densities beyond 750. It is only in Tamluk, Uluberia and Samserganj police stations that the elimination of their towns would make little difference in their rural density. Tamluk and Uluberia would suffer the least, neither would Samserganj suffer much. The reason has already been stated. Tamluk and Uluberia is in the heart of the great fertile block where agriculture is capable of carrying a very great pressure; Samserganj's advantages have already been described.

89. The industrial police stations, too, show different rates of progress in density in different parts of the State, and in some of them also signs of saturation are evident in the slowing up of pace in recent decades. Although the police stations of Jalpaiguri and Darjeeling have been excluded from the C group of 61 industrial police stations, on


THE HOOGHLY BASIN

account of their failure to reach the 1,050 and over mark of density, yet it has to be acknowledged that the countryside of these two districts, except the portion south of the Mahananda river of Silliguri police station, are organised on an industrial economy of tea plantations rather than agriculture. The pattern of production is industrial, even as South America, the country of grain and livestock, is industrial rather than agricultural. The land is accordingly managed in these two districts in large blocks under tea estates, and the product of the soil is collected, processed, packed, shipped, marketed and sold according to orthodox industrial patterns. An intense network of excellent roads have been built over the face of this area solely with the object of supervising the industry, reducing transport charges, waste of time, and bottlenecks. Everything is rationalised and mechanised to a degree, and if the industry is to survive competition from Africa and Indonesia it will have to go still further and mechanise picking and tending the tea bushes as well, because already the cost of manual labour on these accounts is reaching prohibitive ceilings. Under such circumstances these two districts cannot afford to set up agriculture as a serious rival to the tea industry and employers must limit ordinary cultivation to the minimum at which they can keep their labour force attached to the garden with the slender bond of a piece of land which the latter can call its own, cultivate, raise vegetables, and inferior corn. The rest of the land must be put under (*a*) timber needed for the factory and plantation, (*b*) shade trees for wind breaks, embankments, terraces and (*c*) reserves for rotation of nurseries and bushes. The change in recent food habits in these districts by virtue of which rice has rapidly supplanted coarser grain in the diets of plantation labour has been noticed in another section, but rice is expensive and arduous to grow and tea garden managements cannot afford to let their labour consume time and energy over rice cultivation. They would rather buy rice at a high price and import it by costly airlifts than turn over land to paddy. This is quite in the fitness of things, because tea must be grown and money earned in foreign markets to buy essential articles for the country's growth. It would be unwise to destroy one of the very few paying industries the country possesses for a handful of grain which is easily secured elsewhere. On the other hand, whatever land is available is eagerly snapped up by jute, raw material for the most important single industry in West Bengal, if not in the Union, and between tea, jute and tobacco, cultivation of grain in Jalpaiguri and Darjeeling will have a lean time, over which one cannot reasonably grumble. Thus things being as they are and should be, there is little wonder at the low density of these districts and the slow pace at which it has grown since 1921. This has already been observed before, and it is obvious that most police stations in these two districts have reached their saturation point, beyond which under the present set up of industrial production, growth will only be a parasite drag on the food resources of the State elsewhere. Obviously neither agriculture nor the tea industry in these two districts can *comfortably* bear a greater pressure of density on the land. If they are made to do so, either the tea industry will suffer or food will have to be constantly imported in increasing quantities to feed the excess population. The average density in the rural areas of Jalpaiguri was 359 per square mile in 1951 and 346 in 1941; in Darjeeling it was 296 in 1951 and 268 in 1941.

90. The remaining industrial police stations of the State readily fall into three well recognisable zones: (*a*) the Asansol-Raniganj zone in Burdwan district comprising Salanpur, Kulti, Hirapur, Asansol, Barabani, Raniganj, Jamuria and Ondal police stations: an area of 395 square miles. Of these Salanpur and Barabani are not mentioned in the C group of industrial police

stations in Statement I.34 because their densities are less than 1,050 per square mile; (b) the Hooghly-Howrah zone along the west bank of the Hooghly river, a thin strip of territory roughly 50 miles long and 2½ miles wide to make a total of 126 square miles, comprising Magra, Chinsurah, Chandernagore, Bhadreswar, Serampur, and Uttarpara in Hooghly district (92·4), and Bally, Howrah, Bantra, Golabari, Mallipachgara, Sibpur and Bauria (33·5); (c) the Barrackpur-Calcutta-Budge Budge zone on the east bank of the Hooghly river, a thin strip of territory corresponding to the Hooghly-Howrah zone, roughly 55 miles long and 5 miles wide covering a total of 276 square miles comprising the 28 police stations of Calcutta, and Tollyganj, Baranagar, Jagaddal, Budge-Budge, Metiabruz, Titagarh, Behala, Bijpur, Dum Dum, Maheshtala, Khardah, Naihati, Noapara, and Barrackpur. There is a small fourth zone or rather isolated territory in Midnapur, consisting of only one police station, Khargpur Town, whose area is 13 square miles; it is a large railway city in the midst of a purely agricultural country consisting of the Bengal Nagpur Railway workshops, but the founding of the Indian Institute of Technology in the locality has sown the seed of future expansion.

91. It will be profitable to discuss the industrial police stations by the zone rather than individually, as they owe their character to the zone as a whole rather than as separate units. As separate territorial units they lose significance but within their zones they acquire cohesion, a common pattern of production and life, a unified network of transport and communications. They hold together in their zones to a common demographic character. Thus the Asansol-Raniganj zone must be taken as a whole as a coal mine area where iron, steel, refractories, aluminium, paper, locomotives, cycles, pottery, electric power, etc., are produced, in which the mining of coal provides the industrial motive of economy and location of production units. The zone has therefore been opened up and developed as a honeycomb of mines in the matrix of which are embedded the other industries. The entire area is covered with a good network of roads which economises haulage and transport, and provides fuel, a major element in the cost of production, almost directly at site. The industries, again, are so constituted that they provide the maximum of employment and mobility to labour; they have almost a uniform pattern of boilers, foundries, ovens, workshops, and assembly lines, so that a semi-technical worker trained in one kind of factory work can easily adapt himself to another, and if for some reason one factory shuts down or closes temporarily its workers do not have to turn home but can find employment in some other factory that may be expanding or wanting new hands. Thus all kinds of labour have greater prospects of finding perennial employment in the Asansol-Raniganj zone than elsewhere, which encourages them to keep to that area. Coal mines also offer perennial or semi-permanent prospects to miners, because even if one mine closes down, a neighbouring one is there to take on its labour. The presence of coal, the investments on communications already made in roads and railways—Asansol is one of the biggest railway junctions sending out lines to the port of Calcutta, to the United Provinces, to the mining, mica, clay and ore areas of Dhanbad, Hazaribag, Gaya, Ranchi, Chota Nagpur, Singhbhum and Manbhum, to the mining and timber areas of Bankura and Midnapur, and to the mining, stone quarry and clay areas of Birbhum;—the plentiful and ready at hand supply of sand in the Damodar, available at small expense, so valuable for sand stowing in mines and in refractory work, the ready supply of clay in Ondal, Faridpur and Birbhum so necessary for potteries and foundries; the ready supply of abundant and cheap labour in the surrounding districts of Birbhum, Bankura, Mayurbhanj, Singhbhum, Manbhum, Hazaribag

and Santal Parganas; the dryness and crispness of the air, the porosity of the soil and good run-off of rain water, which keep the labour force fit for sustained work instead of getting enervated in humidity, and make it possible to build durable and *cheap* hutments for labour; the comparative healthiness and absence of malaria which keep the labour force free from devitalising illnesses; proximity to the great rice plains of Burdwan in the east and Bankura in the south, which maintain a good supply of foodgrains: all these have combined to keep this area rigorously within its present limits instead of letting it sprawl over the countryside. These are the factors standing in the way of physical extension of the area, and it is doubtful that even the cheap supply of electric power promised by the Damodar Valley Corporation will encourage this area to extend far enough or that cheap electric power will be such a decisive economy over the already cheap coal and privately generated electricity available in that locality as to override the other factors listed above and promote expansion towards the agricultural and low-lying east. The area cannot extend north and south because of the barriers the Ajay and the Damodar rivers present. It can only extend westwards into Bihar which it has already done. Much will depend, however, on how Indian coal, iron, steel, aluminium, locomotives, pottery, paper and other manufactures fare in the world market or even within India, as it appears that even as late as 1931 the density of this zone improved by comparatively slow stages, and up to 1931 the secondary industries of the area did not come into their own. World War II, however, gave a great impetus, and even before it Japan had started to buy large quantities of Indian coal, as a result of which the zone received a fresh lease of life and the density went up by leaps and bounds in 1941 and 1951. If the present trend in industry continues and India continues to dominate her part of the East, this zone will have continued prosperity because as the population avowedly depends on industry, and not even in a complementary way on agriculture, no question of encroachment on food production within the zone can arise, and the limit of density will be determined by the amount of coal available and capable of being mined. Almost the whole of Faridpur and Kanksa police stations to the east of this zone comprising an area of 229 square miles can be developed suitably for the extension of the Asansol-Raniganj zone. Industries situated in these police stations will certainly not be too far away from coal, and electricity from the Damodar Valley Corporation can be utilised to good advantage. The low densities of these two police stations indicate the poor state of their agriculture which leads to the presumption that the establishment of industries in this region will not enter into injurious competition with agriculture. Whatever agriculture the labour force attends to is far away from this zone and that only during holidays or the slack season of the industries. There is no conflict or competition with agriculture, and industry can therefore grow unimpeded for which the zone is well suited. Surface and underground mines are so well spaced and distributed as to keep sites of industries well apart, allowing each location plenty of elbow room for future expansion. But a factor favourable to further industrial expansion and eventual linking up with the Hooghlyside will be the Durgapur navigation canal of the Damodar Valley Corporation and the working of the DVC electricity grid over the entire zone.

92. A different set of conditions, to those responsible for limiting physical extension of the Asansol-Raniganj zone beyond Kanksa in the east, operate in the Hooghly-Howrah and Barrackpur-Calcutta-Budge-Budge zones to keep them severely within their present limits. The first limiting factor is the situation of the port of Calcutta. Haulage, warehousing and transport are very

important items which go to swell the cost of production and the selling price, and, under the present condition of roads and railways, all the three are costly in this country. So the farther away from the port of Calcutta an industry is located—especially an industry which is not engaged in primary production of raw material but in commodities of a derivative nature involving the use of complicated machinery and reserves of spares and repairs which are available with minimum loss of time only in Calcutta and Howrah—the greater its cost of production and difficulty in finding a market, and the greater the risks of deferred sale. How, for example, the tea industry wish every day of it that it were possible to move down tea gardens from Jalpaiguri, Darjeeling and Assam to somewhere in the Sundarbans! In the next place, the Hooghly river is navigable for barges and towing craft all the year round only up to Tribeni on the right bank and Mulajor and Kanchrapara on the left, and the industrial zone has been able to extend northwards only to those points and no farther, for water transport is still the cheapest form of transport, a great factor in keeping down costs, and were the Hooghly to silt up to a point further south today all jute mills down to that point would have to fold up tomorrow. Water transport is the second great single factor which has determined the location of the jute industry on the Hooghlyside. Thirdly, almost all industries in these two zones obtain electric power cheaply from the Calcutta Electric Supply Corporation which represents the bulk of electricity produced in the State; this is, perhaps, the third great factor which has determined the location of industries in these two zones and militated against territorial extension in spite of the severe strain put on the limited space. Fourthly, most large factories and industries in these two zones are established within municipal limits so that they obtain the benefits and amenities of municipal administration for themselves and for their labour: good roads, protected water supply, efficient or at least tolerable sewerage and scavenging service, street lighting, and good markets for fresh vegetables and other eatables. Were they established outside municipal limits they would have to go in for prohibitive expenditure to provide these amenities for their labour force, which, living in the metropolis or its suburbs, would not care for factories which did not provide them, or else would ask for higher wages to compensate for their lack. Fifthly, owing to the proximity of the metropolis, the municipalities, and the semi-urban areas, the factories obtain a ready and almost inexhaustible supply of labour. This suits the labour force in their turn, for whom alternative employment is not difficult to secure, for if one factory closes down, there is frequently another which may be recruiting labour. In any case the possibility of alternative employment reduces the period of unemployment between one assignment and another as well as keeps a big supply of labour ready at hand. If an industry were located, say, in Malda, that industry would have to spend a great deal on housing and other amenities, and yet would have to offer extra baits to keep its labour from defecting. In the sixth place these zones are excellently served by wide trunk roads running through their entire lengths on either bank of the river, by good, fast and cheap motor stage services and suburban railways, by virtue of which it is possible for the labour force to live scattered over wide, even rural areas and yet attend to their duties daily on time and at very little recurring expense. A journey of twelve miles across the country on a country road in Murshidabad or Malda takes a minimum of eight hours and a minimum expense of ten rupees on a bullock cart, while it takes much less than two hours each way for a worker from Ranaghat, 46 miles away from Calcutta by rail, to attend his place of work in Calcutta at an expense of less than two rupees.

These are powerful and overriding factors which keep the two Hooghlyside industrial zones within their hundred-year old bounds and prevent them from extending into the interior. In the Hooghly-Howrah zone any attempt at penetration into the countryside brings industry into clash with agriculture and cheap rural housing. Besides, the lines of communications, owing to the poor state of transverse feeder roads and railway branches, will be made to stretch uneconomically far. On the left bank, in the Barrackpur-Calcutta-Budge-Budge zone, extension on the east, which would indeed have been logical, economical and desirable, is limited by the great barrier of the salt lakes, river and canal beds which cannot be filled up and made fit for building, if for no other reason but that on their continued existence depends the sewerage and flushing of this zone. Until the Ganges Barrage Scheme is worked out (which will perhaps change the face of the entire zone leading to much improved agriculture, commerce and new industry), this zone therefore can possibly extend only in two directions (*a*) towards Diamond Harbour, which it has been doing for the last few years, and continue to enjoy the benefits offered by the Hooghly river, and (*b*) towards Barasat, Bangaon and Basirhat along the trunk roads to the north-east of Calcutta. A scheme is under way to electrify this region and attract industrialists, but the trunk roads are still so narrow and winding that they cannot dispose of fast and heavy industrial traffic, and, besides, railway communications are still fantastically toylike: the Barasat-Basirhat Light Railway, 52 miles long, emanating from Shambazar in Calcutta, inaugurated in 1913-14, is still a 2′ 6″ track. The other track from Dum Dum *via* Duttapukur and Gobardanga to Bangaon which completes the circle from Bangaon to Ranaghat and back again to Dum Dum down the main Calcutta-Ranaghat line is however a broad gauge (5′ 6″) one and can well serve as an excellent circular railway encompassing a large area within welcome proximity of Calcutta. But it is curious that although this circular track was completed as early as 1882-83 it has not stirred up this tract into industrial activity at all. There must therefore be certain factors which have resisted industrial growth in this area, and it is possible that the absence of water communications and good drainage, and the presence of low-lying swamps, marshy river beds and large fields of rice make reclamation for the establishment of industries prohibitively costly and brings the latter into clash with production of food like paddy and raw material like jute.

93. There is a growing realisation today of the need to disperse industry, deflate Calcutta, reduce its vulnerability in times of war and strife, and infuse health in the outlying limbs of the State by removing the awsome congestion of its heart. It is possible for promoters of a welfare state to succeed in this campaign, given the determination and cooperation from industry. But certain conditions must first be fulfilled before dispersal can be made to work economically. Many small and medium industries established in the past in the interior have failed. A study of the factors favouring these two industrial zones will provide a ready answer as to why they failed. It has to be remembered that in spite of a large coastline all round, excellent perennial ports, a most efficient, searching and far-reaching network of railways, a most superb road system capable of taking the heaviest of traffic, an almost completely electrified country, an all-embracing sewerage system, in spite of a high powered, determined Royal Commission, and in the face of extreme vulnerability to sea and air attack, it has not been possible to deflate London and disperse its industries more evenly over the United Kingdom, where such dispersal, at least of new ones, would have added little, by comparison with a similar problem in Calcutta, to production costs. It sounds easy and fair enough to wish to take

industry to the labour force in the village, but it is abominably difficult to make it work, especially for an underdeveloped and agricultural country. Labour has to foot it every time to the site, unless by a happy and fortuitous coincidence it is cheaper for a primary industry to work at the source of labour supply. But for all derivative or secondary industries, which depend on the availability of partly worked or finished material, other factors far outweigh the mere availability of unskilled labour.'

94. These, perhaps, are the reasons which keep the two Hooghlyside zones rigidly within their bounds, not that employers and establishments would not like to spread out a little more for elbow room instead of remaining cramped for space, but that extension is limited by necessity.

95. In these two zones also progress of density follows the same pattern as the Asansol-Raniganj zone. Up to 1931 progress was steady but slow in the zones as a whole. In Chinsurah and Magra police stations in Hooghly, the density actually regressed between 1872 and 1931. The density of Chinsurah was 3,263 in 1872 and 2,816 in 1931, having touched as low as 2,345 in 1881 and 2,371 in 1911. The density of Magra was higher in 1872 (1,123) than in the intermediate decades, having touched its lowest in 1881 (807) and 1911 (816). The three industrial police stations in the Serampur Subdivision of Hooghly moved up by fairly uniform graded stages up to 1931, but after 1931, all the industrial police stations of the district increased their densities by a bound in 1941 and a leap in 1951. Progress was phenomenal between 1931 and 1941, perhaps due to the demands of the newly started war at the close of the decade on the jute and cotton mills, and less spectacular between 1941 and 1951, indicating that the capacity of employment was nearing the saturation point towards the close of this period. On the whole, progress of density in the Hooghly zone, the strip to be industrialised earliest on the Hooghly river in the last century, has been more even and slow over the decades than in Howrah and 24-Parganas. Nevertheless, as in the Asansol-Raniganj zone, 1931 marks the point before which the density of the industrial population in Hooghly was comparatively stagnant, although at a high level, and after which it made another spot of very rapid climbing.

96. Almost the same remarks apply to the industrial police stations of Howrah with this reservation that industry was established in them later than in Hooghly. 1881-91 was the age of industry for Howrah. Between 1891 and 1931 progress in density was steady but nothing spectacular but, as in Hooghly, it made a great bound in 1941, when the density increased by more than half of what it was in 1931, followed by a smaller leap in the next decade.

97. The Barrackpur - Calcutta - Budge-Budge zone follows the same trend as in the other two industrial zones of the State, but resembles the Hooghly strip the most. Between 1872 and 1931 there have been frequent regressions in density in the Barrackpur and Budge-Budge strips, although not in Calcutta, and progress has been tardy in most of their police stations up to 1931. In fact police stations like Barrackpur, Titagarh, and Behala remained pretty stationary between 1911 and 1931, while Dum Dum, Khardah, Noapara, Baranagar and Tollyganj moved up only by slow stages. Between 1931 and 1951, however, progress in density has been rapid, more so between 1931 and 1941 than in 1941-51 when the tempo slowed down.

98. As for the fourth zone, Khargpur Town, it is so small in area, so flung right into the heart of an agricultural plain, and is so entirely and abjectly dependent on the Bengal Nagpur Railway workshops which constitute its only industry, that it is a misnomer to call it an industrial zone at all. Without ancillary or auxiliary industries it has no prospect of expanding its terri-

tory and it must quickly reach its saturation point in the next few years. The Indian Institute of Technology, however, promises to give it a pronounced residential character and a stable minimum industrial population.

99. Besides these zones, there are two small areas on the north and south of the Asansol-Raniganj zone, which, properly speaking are mere extensions of this zone entirely dependent on it, possessing no separate character or standing of their own. They are the Khayrasol and Dubrajpur police stations north of the Ajay river (244 square miles) containing small coal mines, ores and quarries and the Saltora and Mejia police stations south of the Damodar river (184 square miles). But all four of them have reached their saturation points in low densities: Khayrasol in 583, Dubrajpur in 549, Saltora in 488 and Mejia in 542. They have little prospect of developing soon in the industrial field. A third prospective small industrial area is Jambani and Binpur police stations in Jhargram subdivision in the far west of Midnapur district, where recent geological prospecting has discovered valuable metals and ores. The place Gidni is in the centre of this region and the area is capable of being opened up by hard surfaced cheap roads. The area, 491 square miles in extent, has a very low density, Jambani having 393 and Binpur 375. None of these, therefore, can yet be called industrial in any sense of the word.

100. Brief account should now be taken of those police stations which have one or more residential or non-industrial towns in them, having densities (i) less than 610 to the square mile and (ii) between 610 and 1,050 persons to the square mile. The following is a statement arranged by districts:

STATEMENT I.36

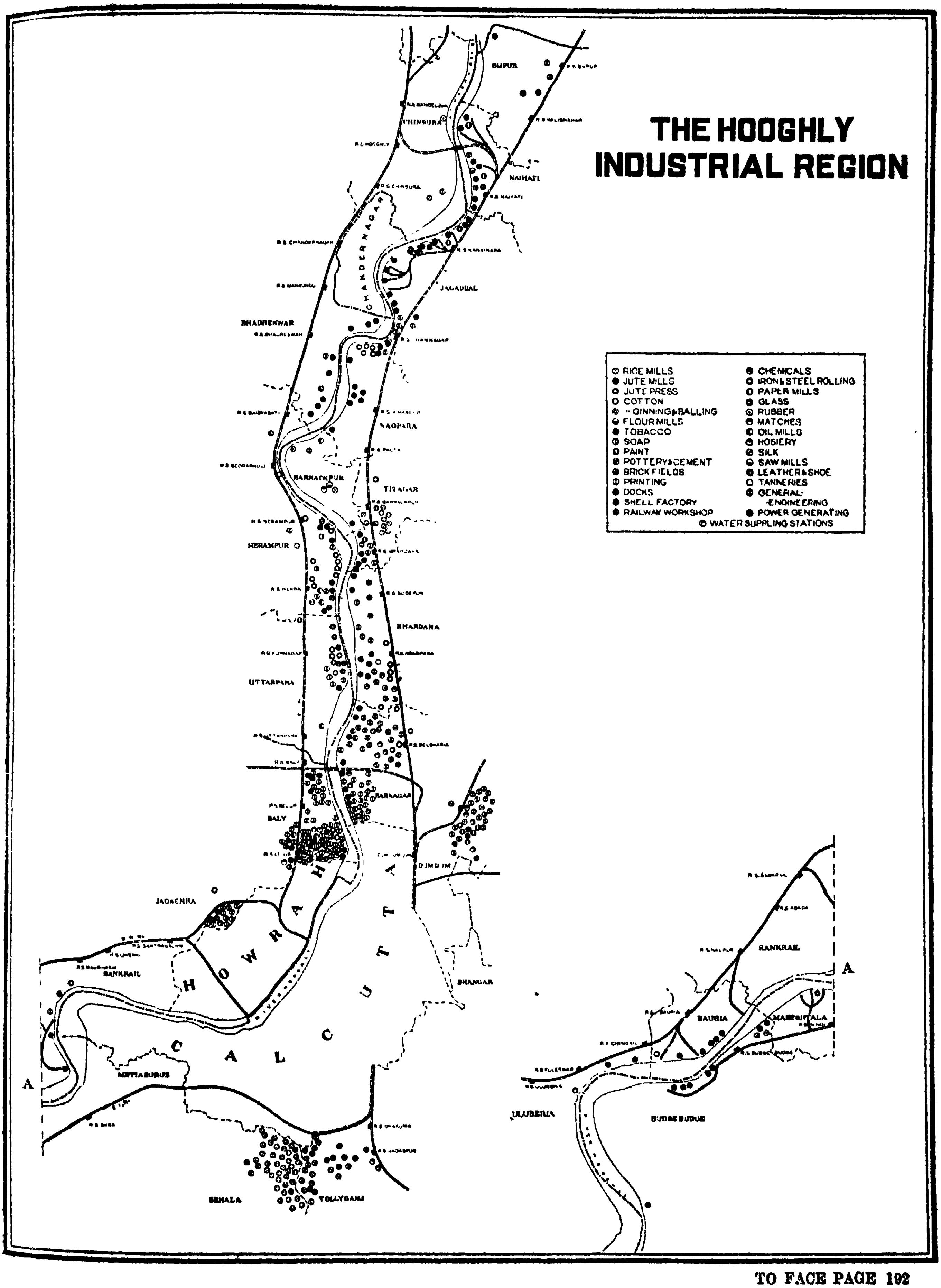
Police Stations, containing non-industrial towns, with densities below 1,050 per square mile, 1951

District and Police Station	Density below 610	Density 610—1,050	Name of town
BURDWAN			
1 Burdwan	..	975	Burdwan
2 Memari	..	899	Memari
3 Kalna	..	913	Kalna
4 Katwa	..	976	Katwa, Dainhat
BIRBHUM			
5 Suri	..	715	Suri
6 Sainthia	589	..	Sainthia
7 Dubrajpur	549	..	Dubrajpur
8 Bolpur	601	..	Bolpur
9 Rampurhat	..	720	Rampurhat
BANKURA			
10 Bankura	..	899	Bankura
11 Khatra	505	..	Khatra
12 Vishnupur	503	..	Vishnupur
13 Sonamukhi	418	..	Sonamukhi
14 Patrasair	491	..	Patrasair
MIDNAPUR			
15 Midnapur	..	725	Midnapur
16 Garhbeta	368	..	Garhbeta
17 Contai	..	973	Contai
18 Ghatal	..	943	Ghatal, Kharar
19 Chandrakona	573	..	Chandrakona, Ramjibanpur, Khirpai
20 Jhargram	386	..	Jhargram
HOOGHLY			
21 Arambag	..	828	Arambag

STATEMENT I.36—concld.

District and Police Station	Density below 610	Density 610—1,050	Name of town
24-PARGANAS			
22 Jaynagar	..	701	Jaynagar-Majilpur
23 Canning	544	..	Canning
24 Hasnabad	..	932	Taki
25 Bangaon	..	674	Bangaon
26 Habra	..	1,023	Gobardanga
NADIA			
27 Ranaghat	..	888	Ranaghat, Birnagar
28 Chakdah	..	934	Chakdah, Kanchrapara Development Area Rural Colony
MURSHIDABAD			
29 Murshidabad	..	740	Murshidabad
30 Kandi	..	776	Kandi
MALDA			
31 Englishbazar	..	954	Englishbazar
32 Malda	428	..	Old Malda
WEST DINAJPUR			
33 Balurghat	..	706	Balurghat
34 Raiganj	547	..	Raiganj
JALPAIGURI			
35 Jalpaiguri	..	622	Jalpaiguri
36 Alipur Duars	441	..	Alipur Duar
DARJEELING			
37 Kurseong	392	..	Kurseong
38 Siliguri	549	..	Siliguri
39 Kalimpong	325	..	Kalimpong
COOCH BEHAR			
40 Tufanganj	436	..	Tufanganj
41 Dinhata	..	650	Dinhata
42 Cooch Behar	603	..	Cooch Behar
43 Mathabhanga	425	..	Mathabhanga
44 Mekliganj	402	..	Mekliganj
45 Haldibari	540	..	Haldibari
			51 towns

101. It is possible to look down upon these thin sparsely populated semi-rural towns as neither fish nor flesh. But they are good red herring. It is true that they are neither rural, nor well planned, neat, well developed towns—many of them do not possess even tarred roads, or good surface sewerage and drainage, or protected water supply or electricity, or a sanitary system of sewerage disposal—nor possess industries worth mentioning except a few rice, oil or saw mills. Nevertheless, they serve as useful a purpose for the natives of the State, perhaps a better one at that especially for the native rural population, as the more spectacular industrial zones. As a matter of fact the



THE HOOGHLY INDUSTRIAL REGION

industrial zones sustain a larger proportion of immigrant population from other States than the natives of the districts in which they are situated. They sustain a large community of agricultural stock which has been driven from other states by pressure on their soil and less of those who have been driven by a similar process from the districts of West Bengal. So far, therefore, as employment and sustenance go, they are about as important to other states as to West Bengal; that is, West Bengal's native population does not enjoy a monopoly of employment in these zones. But not so in these semi-rural towns. Here, these towns in a real sense draw off and employ almost wholly the surplus of the native population driven away by agricultural overcrowding. The surplus of the unemployable rural population is very effectively screened in these towns first, and what is still left over is pushed on to the industrial zones. The towns, therefore, play an important economic role in the life of the country whose economy is still by far and away agricultural, by providing divers employment to local surplus rural stock. Besides, the career of these semi-rural towns also represents the career of our native industries and commerce during the last eighty years. For one thing, these towns represent the points of contact between the government's administrative machinery and the local population: they are primarily administrative headquarters of the government where the courts, offices, and security stations or police stations are established. Secondly, they are convenient centres of trade and commerce, and invariably provide the most important local market for important raw materials and commercial products of the local *hinterland*; thus they help to articulate the peculiarities of local craft, workmanship and excellence and export them for consumption elsewhere. Thirdly, by providing employment to local artisans they develop small industries which cater to the needs of their surrounding rural areas in an efficient and economical chain. Fourthly, they absorb the educated unemployed in various professions and help to articulate local cultural aspirations. Fifthly, they are centres of education and technical knowledge which they make available within the means of the aspiring section of their population, for whom the alternative of going to the city might be prohibitive. Sixthly, they are good efficient links between the home and the world and centres for the dissemination of cultural, social, political and economic trends. In the next place, each of these towns acts as a small stock exchange for agricultural prices, and for organising, concentrating or dispersing stock. Finally, they serve to retain a great deal of local talent within the police stations in which they are born and thus prevent them from being lost to the locality by migration.

102. It has been mentioned above that the history of these semi-rural towns and police stations also represents the history of our native industries and commerce over the last eighty years. It is necessary not to let this statement pass without due examination.

103. In Burdwan, Memari has always been a prosperous agricultural police station in which the town carrying its name is conspicuous for several rice and oil mills, and as a big agricultural mart. It has always had a small but steadily growing density. Burdwan is important for its administrative headquarters town, as a railway junction and terminus, a traffic junction for roads in many directions befitting its position as a district town, and has been long famous for its cutlery at Kanchannagar and its confectionery. No industry that used to flourish before has declined nor has any new industry grown up inordinately quickly: it has thus steadily but slowly increased in density. Being a primarily residential town with an artisan population, it has reacted to

epidemics in the normal manner, as can be expected, by a reduction in density following an epidemic, and gradual recovery in the years thereafter, as in 1881 and 1921. In 1911 it reacted to the separation of Bihar and Orissa also by a slight reduction in density. Kalna and Katwa were in the epicentre, so to say, of the Burdwan Fever of 1872, and having a mainly residential and artisan population in their three towns, whose vitality or lack of it was at a par with that of the local agricultural population, they took a long time to recuperate. Besides, the extinction of indigo plantations between 1881 and 1911 robbed them of a substantial density after 1881. But the Burdwan-Katwa railway in 1915 and the Ahmadpur-Katwa railway in 1917 saved the area from rapid decline. It is only in 1941 and 1951 that they have surpassed their pristine densities of 1872. They are once more established as small centres of river trade on the Bhagirathi.

104. Suri is important as a district administrative headquarters and as such has maintained a steady density. Sainthia early gained importance in 1859-60 as a junction of the Ajay-Sainthia and Sainthia-Tinpahar railways and later in 1906 of the Ondal-Sainthia line. The establishment of rice and small mills in recent years, has increased its density from 1931 onwards. Dubrajpur has always been a mining and quarrying centre which has kept its density steady. Bolpur was on the fringe of the Burdwan Fever area in 1872 but lost in density heavily between 1881 and 1921 for other reasons. These were the extinction of indigo and the decay of the lac industry. It has been picking up since 1931 due to the establishment of the rural university of Santiniketan, of rice and oil mills. Rampurhat has always been a big railway centre since the railway line opened in 1859-60, and, having had no other industry which might affect its population, its density has been only slowly rising in the normal course.

105. Bankura has increasingly gained in administrative importance, as a great agricultural centre, and a place for rice mills, but being primarily a residential police station its density has risen only slowly and steadily. A similar trend is noticeable in Khatra. But Vishnupur having steadily lost much of its silk, bell metal, conchshell, ivory and tobacco industries after 1881, its density is now a good 28 persons per square mile fewer than in 1872. A similar fate has overtaken Sonamukhi and Patrasair for identical reasons: they used to be commercial centres in the 19th century famous for their grain, silk, tobacco, indigo and cotton, which having been lost or extinguished over the years, their density has declined, Sonamukhi from 441 in 1872 to 418 in 1951, and Patrasair from 557 in 1872 to 491 in 1951.

106. Midnapur has always been important as a great administrative outpost with a steady, although modest, density. Garhbeta used to be famous for indigo and wild silk, *endi*, and as a stronghold of native chieftains; all these having disappeared it lost steadily in density from 356 in 1872 to 299 in 1931. Even in 1951 its density was only 368. Contai is a police station with only one town of its name in a thickly populated agricultural plain and its density therefore shows the same slowly rising trend as the surrounding country. The most important group of police stations from the point of our present inquiry is Ghatal and Chandrakona which between them contain five towns Ghatal, Kharar, Chandrakona, Ramjibanpur and Khirpai, all created municipalities very early in 1869, 1888, 1869, 1876 and 1876 respectively. Both police stations registered spectacular declines in density: Ghatal from 1,144 in 1872 to 793 in 1921 to rise gradually to 943 in 1951; Chandrakona from 706 in 1872 to 525 in 1931 to rise slowly to 573 in 1951. Ghatal used to be famous for the manufacture of cotton, tusser silk, bell metal utensils and earthenware

and was so important that the Dutch had a factory in the headquarters town, which is still used as the subdivisional courts, and in the early days of British occupation three commercial Residents were located in the locality to supervise local trade. Chandrakona, Ramjibanpur and Khirpai were famous for cotton cloth weaving and the manufacture of brass and bell metal ware, and in their palmy days the towns had numerous bazars or marts, about 64 in all. It flourished as far back as in the second half of the 17th century as a centre of sugar manufacture and cotton weaving. The yarns produced were of so fine a texture that they sold for 2¼ *tolas* per rupee. It continued to flourish in the 18th century, being an entrepot for fine cloths. The weaving industry was further developed in the second half of that century by the location of an important factory of the East India Company in Khirpai. In the 19th century the industry declined owing to the withdrawal of the Company from commercial undertakings and the importation of English piecegoods. Almost simultaneously Ghatal and Chandrakona succumbed to the famines of 1866 and 1874, and the fever and cholera that ensued proved disastrous to the impoverished, unemployed population.

107. Arambag in Hooghly was an important road junction in the nineteenth century before the age of the railways and contained indigo factories. With the extinction of indigo and the diversion of arterial traffic, trade and health declined so that the density declined too from 718 in 1872 to as low as 598 in 1921. It has been gradually looking up since then. Its agriculture has received a fillip from the needs of the industrial population in the nearby zone.

108. Jaynagar-Majilpur, Taki, Gobardanga and Bangaon, in Jaynagar, Hasnabad, Habra and Bangaon police stations of 24-Parganas district respectively are suburban towns, and as such their progress has been uneventfully steady.

109. Ranaghat, Chakdah and Santipur in Nadia suffered from the extinction of indigo and a sluggish agriculture but has gained quite out of proportion in 1951 on a large Displaced population.

Murshidabad in the district of that name has preserved a uniform density, because the life of the area has stagnated since the fall of the Nawab. Kandi in that district has slowly improved in agricultural prosperity.

110. Englishbazar in Malda has a flourishing and growing district headquarters town, but Old Malda police station has tended to stagnate as a centre of trade. Balurghat and Raiganj have only small district and subdivisional headquarters, which have acquired prominence only after the Partition of 1947. Jalpaiguri and the subdivisional towns in Darjeeling have prospered directly with the tea industry, Alipur Duar having prospered as a railway outpost and Kalimpong as the gateway to Sikkim and Tibet. The police stations of Cooch Behar have lived a humdrum life of slow, steady growth, having had no special commercial importance.

111. Thus, in more than one way, these police stations of low density and residential towns are a truer index of the fortunes of the people of West Bengal than the more happily placed 26 rural police stations, or the 17 non-industrial police stations with fair-sized towns, or the 61 industrial police stations of high densities of Statement I.34. The last group cannot claim homogeneity and identity with the general features of the country: they do not reflect either famines or small depressions, or reverses in the fortunes of rural industry; nor do they reflect how much of the population is driven away to other occupations by an over-crowded agriculture.

112. Further, the densities of these police stations just discussed is on a par with those of entirely rural ones and

afford an insight into the capacities of average agricultural land in the country. We can now turn to the purely agricultural police stations of the State.

113. We may be anticipating conclusions but it is well to state here, so that the statistics will acquire a new point all their own, that a stage has been reached in West Bengal when a rural population with a density of not much more than 500 per square mile tends to decrease off and on or remain stationary. The loss of Eastern and Northern Bengal has removed areas of varying capacity of the soil, so that the soil in West Bengal is of fairly uniform fertility, except in the extreme Western fringes. Climatic conditions, too, are similar. In parts of East Bengal it is possible for a population over 1,000 persons to the square mile to go on increasing rapidly, while a population less than half as dense in rural districts in West Bengal remains stationary or decreases. With the progress of civilisation and the improvement of communications, the standard of living adjusts itself to variations from place to place in the capacity for production, whether in agriculture of industry. The standard of living maintained in agricultural populations in West Bengal seems to have been adjusted to a density ceiling of not more than some 500 persons to the square mile. The surplus population is either drawn off into other industrial and commercial enterprises or come to a brief end, leaving the standard of living among agriculturists at a still low level. This must be a fundamental reason standing in the way of speedy rehabilitation of Displaced agriculturist families on agricultural land. Fortunately, in West Bengal more than in some other states, a stage has been reached at which industrial and commercial enterprise draws off at least a small portion of the labour not absolutely required for agricultural purposes. This assumes a state of affairs in which the land available for cultivation is not sufficient to give full employment to a great multitude who see no occupation but agriculture to which they can turn their hands, or to which they are used. The next stage threatens to be a long time before it is reached, and the time must necessarily be the longer on account of the fact that so large a proportion of those engaged in agriculture own substantial rights in the little plots they cultivate, and will not readily give them up when it comes to the question of leaving agriculture for another occupation. The time must not only be necessarily longer but painful also, on account of the fact that there are, besides, large proportions of share-croppers and agricultural labourers who will need to have their little ambitions of owning a little plot of land all their own fulfilled before they are through with this craving. In Europe, the maintenance of a minimum standard of living places a limit on the increase in the numbers who continue to support themselves by agriculture, but in West Bengal, this is not the case because of the absence of a minimum standard and the scarcity of alternative employment.

114. We find that in Burdwan any agricultural police station with a density over 500 per square mile has had a chequered career and does not show steady growth at all. The same remark applies to Birbhum and Bankura. Bankura particularly has had an average density well below 500 in rural areas throughout. Midnapur provides the most forceful example of how density of population in rural tracts directly varies with the fertility of the soil, and how the onward march of an overwhelming density abruptly stops short along a sharp line from end to end where the soil changes its alluvial and fertile character and becomes suddenly rocky and laterite—like a sharp line of rain mark in a field up to which the clouds have shed their water and no farther. Thus Midnapur Sadar and Jhargram subdivisions have densities less than 520 and 390 respectively to the square mile, while Contai,

Tamluk and Ghatal have densities over 800. Pandua, Dhaniakhali and Polba were saved from rapid decline: the first two by the opening of the Bandel-Nabadwip broad gauge railway in 1912 and the two latter by the Tarakeswar-Rudrani-Magra-Tribeni railway in 1894-1902 and the Dasghara-Jamalpurganj railway in 1917. Howrah and 24-Parganas are outside the ken of the present survey, but in Nadia only two rural police stations outside those already discussed, Krishnaganj and Kaliganj, have densities over 600. Only the alluvial tracts of Murshidabad have seen steady growth but other areas together with the police stations west of the Bhagirathi in that district have fluctuated in density from decade to decade. The same applies to Malda, where the alluvial tracts of high fertility have high densities but no area north and east of the Mahananda has a density exceeding 500. This is also evident in West Dinajpur, where in spite of a large Displaced population scattered over the country swelling its density, there is no police station, barring Hili, Balurghat, Raiganj, Kumarganj and Kaliaganj, with a density above 500, the general average rural density for the district being 492. Jalpaiguri and Darjeeling have densities much below 500, while Cooch Behar with an average density of 471 has decreased in population off and on and seems to have reached its ceiling.

SECTION 3

GROWTH AND MOVEMENT OF POPULATION

115. The discussion on density in the last section illustrates how population has grown more in certain areas of the State than uniformly all over the country. The areas of the maximum and most rapid growth of density over the last eighty years have also been pinpointed to confirm the general impression that there has been more spectacular growth at least during the last forty years in the industrial areas than in the large agricultural spaces. As a matter of fact, the large agricultural districts look as though the saturation point of population *vis-a-vis* agricultural production at the present technical level has already been reached, and unless there are radical reforms in land management and improvements in agricultural yields together with the absorption in local industries of the surplus population which will inevitably be driven away from the land as soon as improved methods of agriculture are introduced, they cannot take larger doses of population any more. It will be shown in Chapters II and IV how the inequalities in the distribution of population, great as they are, seem to follow still greater inequalities in the reproductive capacity of the soil. As has been said before, a stage has been reached in West Bengal when a rural population with a density of not more than 500 per square mile tends to decrease off and on or remain stationary but it is necessary to confirm these conclusions by a discussion on the growth of West Bengal's population from the data available.

Early Accounts of Population

116. The first census of Bengal was taken in the year 1872. Earlier than that date no attempt had been made on systematic lines to discover what the population actually was. The Marquis of Wellesley called for information regarding population from the Collectors and Judges stationed in the districts in the year 1801, but "Nothing more has yet been produced than the estimates of ingenious men, who differ considerably among themselves. The first opinion promulgated after the Company's acquisition of the Dewanny, concerning the population of the three provinces, was, that it amounted to ten millions (for the lower provinces of Bengal—A.M.). Subsequent observations led to a persuasion that this estimate was far too low. Sir William Jones, about five and twenty years ago (1786-7—A.M.), thought that the population of Bengal, Behar, Orissa, and Benares amounted to twenty-four millions, and Mr. Colebrooke, about ten years ago (1794—A.M.) computed it to be thirty millions. If any opinion were now to be offered on a point which has not yet been subjected to strict investigation, perhaps there would be no danger of exceeding the truth in adopting a medium between the two last calculations, and supposing the population of the four provinces to be not less than twentyseven millions". This is from the celebrated Fifth Report of 1812. Extracts from *Remarks on the Husbandry and Internal Commerce of Bengal* by Henry Thomas Colebrooke, about whom the great Max Muller remarked that he did not let one word escape from his pen for which he did not have his authority, are quoted as Appendix III at the end of this volume. It was first published in Calcutta in 1804 and is invaluable not only for its account of the population but of West Bengal's husbandry at the time of the Permanent Settlement which practically anticipates and summarizes all that has been written on the State's agriculture over the last one hundred and fifty years. At the time when the

Fifth Report was written, a noble attempt was being made by Francis Buchanan, who afterwards took the name of Hamilton, to carry out a statistical survey of the Province. It was never finished, but during the seven years from 1807-14 in which he worked in North Bengal and North Behar, Buchanan arrived at results which showed the population in those parts to have been very much the same as it was counted in 1872. An extract from Buchanan Hamilton's account of Dinajpur is printed as Appendix IV in Part IC of this Report which will illustrate his method of computation besides furnishing a valuable commentary on contemporaneous birth and death rates much of which applies to this day. His method of calculating the population naturally appears somewhat rough and uncertain, as a study of the Appendix will indicate, but it is only fair to state that he himself was fully alive to its imperfections. Still he considered the results he obtained to be infinitely more trustworthy than those arrived at in 1801. In 1872, H. Beverley, the Superintendent for Bengal compared the results of his own enumeration in six districts—Rangpur, Dinajpur, Purneah, Bhagalpur, Patna and Behar, and Shahabad—with those of Buchanan Hamilton conducted between 1807-14 and found a difference of 741 square miles more on the latter's estimate of 36,784 square miles for the six districts and a decrease in population from an aggregate of 15.44 millions in Buchanan Hamilton's time to 14.93 millions in 1872. In the meantime, the only attempt to estimate the population was a very unsatisfactory one made by the Revenue Surveyors in each district as they dealt with it. Their estimates based on the number of houses were often very low indeed compared with the census figures of 1872, and even the Survey Officers themselves appear to have placed but little confidence in them. Though no estimate of the population of the Province made before the census of 1872 is worth quoting, the early official reports and the correspondence of the East India Company's servants give a clear impression that in the early days of last century, the population was distributed in a manner very different from its distribution today. Today the population is distributed over the whole area of the State with unusual thickenings in certain parts. There are very few waste spaces left other than those that are rocky and under heavy timber or are markedly saline. A hundred years ago there appear to have been stretches unbroken by cultivation for considerable distances in parts of every district due largely to the depopulation caused by the famines of 1770-86. W. W. Hunter writing his Statistical Accounts as late as the 1870's was able to say for almost every district that "the area under rice cultivation has greatly extended within the last twenty years, large tracts of land formerly covered with jungle having been reclaimed and brought under rice". Cultivators could always immigrate and often did so from one pargana to another and had no difficulty in finding land which they could take up. The distinction between the cultivator's rights as a "Khudkhast ryot", *i.e.*, in the estate in which his homestead stood and as a "Paikhast ryot", *i.e.*, in an estate in which he subsequently took up land, was in those days a very important one. The landlords had some inducement to keep their tenants on their lands, and that there was always land to spare accounts for the fact that the customary rates of rent remained unchanged for long periods and the early Revenue Regulations make no provision for enhancement of rates of rent at all. There were instance of military colonies which the Mughals deliberately made centres of population by establishing soldiers as cultivators. One such was formed by the *pargana* Sershabad in Murshidabad which was an outpost of Sher Shah. In the statistics of the census of 1872, there is some evidence of the old established centres of population where cultivators had been able to live secure. Such centres were Vishnupur in Bankura; Khandaghosh, Raina, Jamalpur and Memari in Burdwan; Rajnagar in Birbhum; Ghatal and Chandrakona in Midnapur; Barisha, Basirhat and Taki in 24-Parganas; Krishnagar in Nadia; Pandua, Polba, Dhaniakhali and Jahanabad in Hooghly; Bharatpur, Kandi, Burwan, Nabagram and Sershabad in Murshidabad; Malda and Englishbazar in Malda; Tapan, Bansihari, Hemtabad and Gangarampur in Dinajpur; Baikunthapur in Jalpaiguri; Dinhata and Mathabhanga in Cooch Behar. By 1872, however, the population had spread over the whole face of the countryside much as it is today, so that the figures of the census of 1872 show very few police stations in which the population was less than 300 to the square mile.

117. R. C. Dutt writing on famines in India, an essay published in 1904 in his book "Open Letters to Lord Curzon and Speeches and Papers" recounted eighteen famines between 1770 and 1878, exclusive of severe scarcities. Appendix VI at the end of this volume gives a list of natural calamities, including famines, scarcities, droughts, cyclones, and severe earthquakes for every district brought up to date which makes the share for each item fairly impressive. In the famine of 1770, the East India Company's estimate was that about one-third of the population of Bengal or over ten millions had died of that famine. The Orissa famine of 1866 affected the western districts of Bengal and the Behar famine of 1874 affected central Bengal as well. The famine of 1896-97 was the last famine of the 19th century of any severity in the State, compared to which that of 1900 was partial and mild. Since 1901 wherever famine raised its ugly head it was quickly localised and suppressed but it seems that W. H. Thomson writing in 1921 was a little too hasty when he remarked that a famine over an entire province was a thing of the past. This was belied in 1943, the consequences of which have been discussed before and whose effects on age groups and specific mortality will be discussed later.

118. Apart from improvements in communications achieved in the last century, which do not need recounting, improvements in the present century have been briefly mentioned in the previous section to emphasize the effect on the density of particular areas when thrown open to railways from time to time.

119. These new lines opened up what are now in the main prosperous agricultural localities. The inhabitants are not inclined to emigrate, and increased facilities for getting away have been no temptation to leave. Nor is there any waste land for cultivation, and immigration for the purpose of taking it up has not been possible. This has been a great stumbling block in the matter of rehabilitation of Displaced agricultural population from East Bengal. The cultivator benefits through improved facilities for marketing his produce and the agricultural labourer is able to move more quickly and for shorter periods to localities where there is greater demand for his services, but these new lines have had no direct effect on the members of the permanent inhabitants.

120. Improvements in road communications were comparatively insignificant up to 1921 except in the Duars in Jalpaiguri district. But owing to insistent public pressure and improvement in the finances of local self governing institutions strengthened by subsidies from the Central Road Fund, the tendency of recent times has been for the District Boards to spend their money more freely on communications. Between 1934 and 1937, the Bengal Government did a wise thing by appointing A. J. King, Special Officer for Road Development, who produced a valuable and

comprehensive report in 1937 on the present condition of roads and a plan for the future. His plan together with the decisions taken by the State Government between 1945 and 1952 will be discussed in connexion with rural and urban population and it is expected that railways having already opened up the interior and thickened habitation on either side of their permanent ways, the new national and provincial highways will populate whatever areas are still short of supersaturation in point of density, and it requires no effort of imagination to visualize that new and thick settlements will embank these national highways in the next ten years: they definitely are the new fields of polarisation.

121. It will be useful first to render an account of West Bengal as a whole, and of Chandernagore and Sikkim, since the first census of 1872, and then take up the growth of each district. The general and the detailed account together with the sections on density and migration will help to present a picture of past and future trends, of the growth and movement of population in the State.

122. Statement I.107 printed at the end of this section gives the adjusted population of each administrative unit at each census and its variation from the previous one. Statement I.37 gives an account of the growth of population since 1872, increase or decrease in the population of a particular census being presented as a percentage of the population at the previous census. Net variations over serveral censuses are presented as increase or decrease in the population at the end of the period expressed as a percentage of the population at the beginning of it. This together with Statement I.39 below which breaks up general percentage variations between rural and urban areas, indicating each area's share in the increase or decrease will help to appreciate the pattern of growth during the last eighty years.

STATEMENT I.37

Variations in population of West Bengal, Chandernagore and Sikkim expressed as percentages of population of a previous period, 1872-1951

e, Division and District	Net Variation 1901-51	Net Variation 1921-51	Net Variation 1872-1921	Variation 1941-51	1931-41	1921-31	1911-21	1901-11	1891-1901	1881-91	1872-81
West Bengal	**+56·7**	**+51·3**	**+20·5**	**+13·6**	**+23·6**	**+7·7**	**—2·3**	**+6·1**	**+8·1**	**+5·9**	**+1·7**
Burdwan Division	*+34·7*	*+37·9*	*+5·9*	*+7·9*	*+19·0*	*+7·4*	*—4·9*	*+2·8*	*+7·2*	*+4·0*	*—2·8*
Burdwan	+43·4	+52·8	—3·3	+15·9	+20·0	+9·8	—6·5	+0·4	+9·8	+0·0	—6·2
Birbhum	+17·6	+25·8	—0·2	+1·8	+10·6	+11·3	—9·4	+3·7	+13·6	+0·5	—7·0
Bankura	+18·2	+29·3	—5·3	+2·3	+16·0	+9·0	—10·4	+2·0	+4·4	+2·7	+7·6
Midnapur	+20·4	+26·0	+4·8	+5·3	+14·0	+5·0	—5·5	+1·2	+6·0	+4·5	—1·1
Hooghly	+48·2	+43·9	—6·7	+12·8	+23·6	+3·2	—0·9	+3·9	+1·4	+2·1	—12·5
Howrah	+89·5	+61·6	+67·4	+8·1	+35·6	+10·2	+5·7	+10·9	+11·4	+20·2	+6·6
Presidency Division	*+80·5*	*+64·2*	*+39·0*	*+18·7*	*+28·1*	*+8·0*	*+0·3*	*+9·6*	*+9·1*	*+8·0*	*+7·3*
24-Parganas	+113·8	+74·8	+55·5	+25·6	+27·0	+9·6	+6·4	+15·0	+8·4	+10·0	+6·6
Calcutta	+176·7	+147·0	+54·1	+20·9	+84·9	+10·6	+3·4	+8·4	+24·1	+14·4	—3·1
Nadia	+48·1	+60·0	—4·7	+36·3	+16·4	+1·4	—8·3	+0·4	+0·0	—4·3	+8·2
Murshidabad	+29·7	+40·2	+0·8	+4·6	+19·7	+12·0	—9·0	+1·7	+5·7	+2·0	+1·0
Malda	+55·3	+36·6	+52·7	+11·0	+17·2	+5·0	—1·8	+15·7	+10·3	+16·4	+4·6
West Dinajpur	+57·8	+46·0	+21·9	+23·5	+11·4	+6·8	—3·8	+11·6	+7·8	+4·0	+1·3
Jalpaiguri	+67·8	+31·8	+244·2	+8·1	+14·4	+6·5	+5·0	+21·4	+25·7	+36·9	+57·0
Darjeeling	+78·7	+57·5	+198·5	+18·3	+17·7	+13·0	+6·5	+6·6	+11·6	+43·9	+63·8
Cooch Behar	+18·4	+13·3	+11·3	+4·7	+8·5	—0·3	—0·1	+4·6	—2·1	—3·9	+13·2
Chandernagore	**+86·0**	**+96·3**	..	**+30·4**	**+40·4**	**+7·2**	**+0·5**	**—5·7**	..	..	..
Sikkim	**+138·4**	**+68·5**	..	**+13·3**	**+10·7**	**+34·4**	**—7·1**	**+49·0**	**+93·8**	..	..

123. Several conclusions are possible. First, 1921 seems to be the Great Divide so far as growth of population is concerned. Up to this year, growth has been erratic depending as it were on every passing chance. Very little trend is noticeable either in direction or steadiness. Over a fifty-year period, 1872-1921, growth has been as negative and regressive as —6.7 per cent. on the 1872 population in Hooghly and as progressive as 244 per cent. in Jalpaiguri. Three other big agricultural districts registered decreases in population

during 1872-1921: Burdwan (−3.3 per cent.), Birbhum (−0.2 per cent.) and Nadia (−4.7 per cent.). It is strange that even Hooghly with its industrial belt and heavy immigrations from 1881 onwards did not as long as 1921 live down its losses by the Burdwan fever and famines, incurred during 1872-81, and a small loss due to the influenza epidemic in 1918-19, and failed by a heavy margin to get the better of 1872. The fact becomes all the more impressive when one remembers that the Burdwan Fever had struck down the district earlier than 1872, in fact in 1861-63, before the census of 1872 was taken, which amounts to a failure in fifty years to get the better of a decimated population over which the scourge had wrought its havoc ten years before, which leaves one wondering about the district's grievously poor reserves of vitality. A still sadder picture than that of Hooghly is presented by Nadia, which was not very much affected by the Burdwan Fever between 1872 and 1881. It failed to preserve its actual population during 1881-91 and 1911-21, and between 1891 and 1911 it improved by less than a mere fraction of 1 per cent. In fifty years it lost 4.7 per cent. of its population of 1872. The only decade in which Burdwan was happy between 1872 and 1921 and improved its population appreciably was 1891-1901 but how much of it was through immigration will be presently seen; in other decades it spent all its energies maintaining its strength, and twice, once in 1872-81 and again in 1911-21 it failed and lost heavily by as much as more than 6 per cent. of its population at the commencement of the decade, the first time to the Burdwan Fever, and again, and this time in spite of large immigration in the mining areas, to the influenza epidemic. A similar fate overtook the neighbouring district of Birbhum with a similar pattern of misfortunes; but recovery during 1881-1911 was slightly sturdier than in Burdwan. Three other major agricultural districts in West Bengal, south of the Ganges, Bankura, Midnapur and Murshidabad, managed to keep their heads above water at the end of the period 1872-1921, although by small margins compared to the size of their populations. How much of the net growth of 24-Parganas up to 1921 was contributed by immigration remains to be seen; from all appearances the share must have been considerable. The only agricultural district in West Bengal which maintained steady growth up to 1921, except for 1911-21 when it, too, fell a victim to the influenza epidemic, was Malda with an average rate of slightly over one per cent. per annum on the 1872 population. Its pattern was followed by West Dinajpur although in a subdued manner. Cooch Behar did not fare well although it escaped both the epidemics of 1872 and 1918-19.

124. The only districts which showed heavy uninterrupted growth during 1872-1921, without a setback in any decade, were Howrah, 24-Parganas, Calcutta, Jalpaiguri and Darjeeling, the first three of which are heavily industrial and the last two pre-eminently tea plantations, all of which fed fat on immigration more than they cared to multiply their original population of 1872.

125. The second conclusion that is possible is that from 1921 onwards a totally different pattern of growth has prevailed in almost every district, not excluding Nadia, from that which had prevailed previously. The period 1921-51 has been one of steady and rapid growth which for West Bengal as a whole is only slightly less than its growth during a longer period, 1901-51, of which it forms but two-thirds in length. It is noteworthy that Burdwan Division as a whole and all districts in it except the industrial ones of Hooghly and Howrah had a much faster growth rate even on their 1921 populations during 1921-51 than during the longer period of 1901-51 on their 1901 populations.

How much of this was due to the excess of immigration over emigration remains however to be seen. The picture is a little different in the Presidency Division and its districts, of which the industrial and plantation districts rapidly filled out during 1872-1921, but even in that Division the central districts of Nadia and Murshidabad followed the pattern of the agricultural districts of Burdwan Division. But in the State as a whole, natural growth during 1921-51 was more continuous and uniform than over any similar or even longer period in the past. Reasons for this remarkable change in the pattern of growth are not far to seek. First, the opening up of the country by railways and roads has thrown open considerable areas of the interior to cultivation and sanitary improvement. The opening up of the interior led to improvements in communication which enabled the Government to combat epidemics and wasting diseases like malaria more efficiently than before. Secondly, this same reason contributed to help Government promptly to localise and tackle scarcity pockets more effectively to prevent them from flaring up into famine areas. Be it remembered that it was the destruction of the means of communications and restrictions on them that contributed quite largely to the famine of 1943. Thirdly, the improvement of communications spread the population more evenly, at least in West Bengal, and helped the agricultural population to market their produce more freely and to secure higher prices for the fruits of their toil. The most prominent feature of the economic history of the last thirty years is the rise in prices which took place after the close of World War I and continued up to 1931, and then again after 1943. Growth of the population was heavy during 1901-11 and it is no coincidence that agricultural prices during 1906-10 were firm and almost half as much again as those before 1905. A good price for agricultural produce means a surplus or reserve in the hands of the person who produces more than he consumes and who can spend it on more food and bare necessaries which contribute to his physical growth and health and although the majority of peasants were prevented by the smallness of their land from reaping benefits of the price increase yet they were enabled to reduce their debts with the help of this rise. In this they were greatly helped by the operation of the Bengal Agricultural Debtors' Act of 1937, which provided for amortisation of mortgages and loans of peasant debtors. The enhancement of prices and the high level at which they stayed were partly also due to the action of dealers and merchants, who, with increased facilities for inter-communication, are now able to control the grain trade to an extent previously unknown. Much of the trade which used to be carried on locally between the actual cultivators and grain dealers in local bazars, has now come under the control of large firms at the chief commercial centres. Their agents penetrate into rural tracts where they were unheard of forty or fifty years ago, and offer bids for surplus stocks. The farmer thus gets a better market and better prices with so many more competitors anxious to buy his produce. Much of what happened to agricultural prices in 1924-28 and 1943-45 was anticipated and well described by F. J. Atkinson in his *Rupee Prices in India, 1870 to 1908,* published in the Journal of the Royal Statistical Society in September 1909; "In India the initial stage of 'cornering' is not ordinarily the result of the action of individuals, but of the elements, as represented by a deficient rainfall. This reduces the supply, and prices automatically rise, but the indications are that the prices to which foodstuffs have risen in certain years have not been raised entirely by the natural action of insufficient rain, or even by an inflation of the currency, but have been artificially raised, and this could only have been done by the action of dealers in foodgrains. These men do not actually form a ring for cornering purposes, but they belong to the same caste in each of the different parts of the country, and act together apparently by instinct, and hold back their stocks, for the purpose of artificially raising prices, on the smallest encouragement, *i.e.*, the smallest shortage of grain. When normal conditions return, after having reaped a rich harvest, if money is at the same time plentiful, they can afford to hold back their stocks, partly with the object of maintaining high prices, and partly for speculative reasons, gambling for another year of scarcity, and they have been encouraged in this manœuvre by the many years of apparently slight scarcity during the past fourteen years. If successive years of plenty follow, they are forced to sell, and prices fall, but only slowly." Owing to further improvements in communications between 1921 and 1931 and again after 1943, comparative uniformity of agricultural prices throughout the land, and the high prices that have prevailed since 1921, what used to be formerly done by traders, as described above, are now done by big and medium peasants and cultivating proprietors. They have more wealth now than ever before as a result of which, they have improved their staying power enormously in the course of the last thirty years, and can comfortably hold back large stocks of grain in the hope of a good price. Fourthly, as an examination of the material condition of agriculturists has shown, they are not half as thriftless and prone to unproductive expenditure and irresponsible festivity as they were made out to be by observers in the beginning of the century They are more mindful of their money now simply because they see more money now than before and understand its value and uses a great deal more. Their chronic impecuniosity and indebtedness had made them thriftless and reckless before, but nothing helps a man better to acquire saving habits and turn over a new leaf than a little money, which is allowed to grow like a snowball.

126. In the fifth place, although in the section on the material condition of the people during 1931-50 more emphasis has been laid on the rise in the cost of living than on improvement in the standard of living, there appears to be no doubt that there has been a certain improvement in the consumption pattern of luxury articles and other goods during the last thifty years. Many things which were formerly regarded as luxuries are now articles of ordinary use. Not the least significant change is the way in which rice has almost completely displaced coarser grains as a daily article of food, so much so that after the famine of 1943 and up to now when the State has been so much hit by the general world shortage of food and especially of rice, it is still quite difficult to push even in those areas where conditions are as bad as to call for modified rationing, certain grains which before 1920 would have been eagerly snapped up as better than the grain those localities were used to. The introduction of controls, rationing, and equitable distribution in the remotest village of all necessaries the use of which before 1941 was mainly confined to prosperous sections in towns has undoubtedly been the largest single factor in upgrading the standard of living all over the country and in enriching the meaning of the word democracy for the common villager. Sugar, for instance, kerosene oil, certain varieties of cloth and certain other types of necessaries which were luxuries ten years ago are now indispensable to the common man. The writer remembers how in 1944 when he proposed to issue sugar on the ration card in Kurseong Subdivision of Darjeeling he was shouted down in a conference as a crazy man and yet in the course of the next five years, in a

remote cottage in Mirik police station, was welcomed by a humble villager with a glass of tea sweetened with a liberal dash of sugar. In 1944 salted tea was universal in Darjeeling, and one of the blessings of Heaven, so missionaries used to preach to prospective converts, was that a common man could drink his tea there with sugar in it "just like a sahiblog". In 1944 sugar, as the Americans would say, was a 'prestige' article, but in 1949 sugared tea was almost universal, except when supply failed, and missionaries were hard put to it to find a similar homely bait to enthuse people into the Faith. Improved wages had done the trick, of course, but no less important was the new equitable distribution which created a rightful demand and brought the need out into the open; it was a case of a way of distribution creating a need first and then feeding it. Similarly, large areas in which the staple used to be maize (Indian corn), *bazra, jowar* or *marua* can hardly do now without rice and wheat. It was these changes in standards which had silently but effectually overtaken the country in thirty years that have made the current food problem of the State more difficult and rigid than it need have been.

127. But here it is important to distinguish between a seeming improvement in the consumption pattern of luxury articles or even an essential article of food or clothing and a real rise in the standard of living. The latter can be measured only when there is any standard of living at all, and the writer is not certain that the State can boast of one in the vast rural spaces or even in the towns. The question arises only when a community has surpassed what in popular economic parlance would be called the 'wolf-point', when it is no longer a question of keeping the wolf from the door, when the community is well above a 'pain' economy, and on the way to one of 'pleasure'. This presupposes a well-balanced diet, secure housing, and adequate clothing for protection and decency, and certain other items calculated to keep a community in health, *e.g.*, sanitation, protected water-supply, and protection against epidemics. It is only when minimum standards in these are secured that the larger question of a standard of living can arise. In the absence of these minimum standards a freak increase in consumption or sale of this or that article is no index of a true improvement but may be due to various extraneous reasons, quite unconnected with better satisfaction of essential needs: for example, it may be due to a change of fashion, effective advertisement, pressure of foreign trade, or a mood of irresponsible thriftlessness born of desperation, a way of scuttling oneself. There is no evidence that any improvement in the consumption of luxury articles or fashionable goods has come only after the community has stabilised a well-balanced diet, better clothing, housing, sanitation, water supply, or better management of its business. It is only in such an eventuality that a rise in the standard of living would have a direct bearing on more capital formation or a real increase in investible surplus either on the land or in industry. Short of it, an apparently improved consumption pattern may really mean living on the fat of the land, such as is still left, without adding to it. This is what has actually happened. On the other hand a real rise in the standard of living would be contingent on a real increase in capital formation, on more and more being ploughed back into the land and industry, to produce greater and still greater wealth and enterprise. It would be thus quite a mistake to confuse a seeming improvement in the consumption pattern of certain luxury articles and other apparent necessities with a rise in the standard of living. It is also easy to confuse the latter with an inordinate increase in the cost of

living, and the fact that people are still alive in spite of this increase. It is too often forgotten that an increase in the cost of living is really incompatible with and inimical to an improvement in the standard of living. It is the investible surplus, left over after the minimum standards of diet, clothing, housing and protection to keep a community in health, cleanliness and minimum physical comfort, have been secured and maintained, that can provide a measure of a rise in the standard of living. As these minima do not yet exist, and as the population is still very much within the wolf-point, it would be talking at cross-purposes to raise this question.

128. In the next place, there has been at the same time in recent years an undoubted improvement in the staying powers both of the small cultivator and the landless labourer. Much of this has been due of course to better ability on the Government's part to fight famines or scarcities and its ability to set up a very efficient distribution chain in next to no time. For example, the disasters that overtook Darjeeling in 1950, or the south of 24-Parganas and Alipur Duars in 1952, had they happened a few decades ago would have certainly taken a heavy toll of starvation deaths. But in both cases when they happened Government moved in stocks quickly enough and prevented the situation from deteriorating. Aoart from the Government's alertness, that the people have more staying power is proved by the fact that in spite of the disasters of 1943-44 and 1946, the natural population has grown at a faster pace than after the influenza epidemic. Sanitation has definitely improved, epidemics are fought and put down more quickly, effectively and skilfully, and there is certainly less malaria than ever before. All this would have helped the common man to build up resistance and withstand disease, had he at the same time had more to spend in terms of real earnings.

129. In the eighth place, even the lot of the man with a fixed income, the salaried worker, has slightly improved and there is now greater evidence of the employer being alive to the need of adjusting the salaried worker's earnings to his cost of leaving. Organisation and greater cohesion have contributed to the strengthening of the lot of this type of worker, and although everywhere a higher salary has to be bargained for and earned, the general level is usually commensurate with the cost of living, but leaves hardly any surplus except in the higher income groups. Naturally enough this class of worker along with the small peasant and share-cropper has the poorest staying power.

130. Ninthly, the landless labourer, formerly the most destitute of all, was not much more affected than other classes. Those who are ready to travel could find employment in the coal-mines, mills, factories, etc., where wages have risen and are far higher than in rural areas. In districts where the wages of field labour have not risen as much as those of industrial labour, the labourers should *a priori* have suffered from the pinch of high prices. In such districts, however, they are paid partly in kind; and while the quantity of produce received remains unchanged, its value has increased. In other parts where agricultural labour is paid in cash, his wages have risen however slightly. In several districts, indeed, local labour has to be supplemented by the influx of immigrants from Bihar and Orissa, and the demand being in excess of the supply, wages are regulated thereby. But the point which is sought to be made here is something different and that is, (*a*) that agricultural labour, ironically enough, owing to further subinfendation of agricultural interests, commands a seasonal market and (*b*) further, the rigidity of caste having given way, a person finds it easier to adapt himself to different kinds of employment which formerly the dictates of his caste hierarchy would forbid stooping to, on

account of which he would rather have starved than engage in something which was derogatory to his caste. There is now a much greater mobility of labour and breaking down of caste and occupational restrictions. When scarcity is felt, a large proportion of the people leave the district and obtain labour elsewhere remitting their savings home. The volume of emigration, in fact, corresponds to the state of the crops. If they are good, it diminishes ; if there is a failure, it is larger and lasts longer. The one section of the community, which appeared to be unadapting until about 1945, consisted of the professional middle classes (Bhadralok) of West Bengal. But as the expense of maintaining their position went out of their reach, as their ranks swelled and competition was rendered keener every year by the growing number of recruits from schools and universities, they took to livelihoods which formerly they would sniff at, went into petty trade and industry, and declassed themselves to the extent of sharing bustees with industrial labour, deciding that it was better to breathe and live than die on supposed dignity. This, therefore, brings home the third aspect of the point that is sought to be made in this paragraph, which is (c) that labour acquired a new dignity which overrode the dictates of caste and social position.

131. Lastly, during the last thirty and odd years there has been some extension of the area under food crops and jute. There is no doubt as to the extension of rice cultivation to tracts where it was formerly unknown. Formerly, the cultivator distributed his capital and labour far more equally between rice and other crops, such as, oilseeds, pulses, etc. Now, the good prices commanded by rice and jute, and the facilities for export afforded by road and railway, have led him to concentrate on them alone. This is not an unmixed benefit, for rice is often grown on uplands imperfectly irrigated and unsuitable for its growth, and the cultivation of paddy being rather exhausting if it is to follow in the same field where jute has been grown earlier in the year, the cultivator generally neglects paddy in preference to the more paying jute, as a result of which the land does not receive the kind of rotation with legumes and rabi crops that it ought to receive. Areas which used to produce millets and maize, on which the people subsisted, have been turned into rice-lands, and, latterly, into jute lands, of which the outturn is often uncertain and precarious, but the price assured. Such cultivation is in fact speculative, the peasants abandoning the grains which form their daily food for the sake of the larger profits which jute and rice yield.

132. To return to Statement I.37. The third conclusion that may be drawn is that the influenza epidemic of 1918-19 retarded the growth of the population and carried off large sections of it and had a more lasting effect than was supposed when the census reports of 1921 and 1931 were written. The decrease in the populations of those districts where it is not masked by heavy immigration stares one in the face even as the decrease dut to the Burdwan Fever and famine did in the census of 1881. Returns of age in India being uncertain and varying between absurdly wide limits it is unprofitable to try to trace the effects of the epidemic through age pyramids in successive decades. But there is a readier means of ascertaining with reasonable certitude the age groups affected by the epidemic: which is by comparing to the total population over several decades the percentage strength of a group of age class intervals. Where the percentage in 1921 of any age class interval is substantially lower than those in other censuses it may be safely assumed that that age class was struck down by the epidemic. Following this line of reasoning it will appear that the age groups that in almost every district were affected more than any others in 1921 were 0—5,

5—10, 30—40, 50—60 and 60 and over. It is not possible to detect any indisputable decrease in other age groups that can be at once attributed to the influenza epidemic. Statement I.38 printed in its entirety at the end of the section is by itself so instructive that all that is done here is to draw attention to the more striking effect on mortality of the influenza epidemic and of a later occurrence, the famine of 1943.

133. As for the influenza epidemic the age groups most affected in Burdwan, Birbhum, Bankura, Midnapur, Hooghly, Howrah, 24-Parganas, Nadia, Murshidabad, Malda, West Dinajpur, Jalpaiguri, Darjeeling, Cooch Behar and Sikkim were 0—5, 30—40, 50—60 and 60 and over as revealed in the 1921 census or 0—3, 28—38, 48—58, and 58 and over in 1918-19. That is, the epidemic struck down the very young, the population in the prime of life, and the elderly and old. The average span of life or the mean age of the population being short it is not possible to draw firm conclusions on the effect of the mortality on ages above 30, nor do the statistics permit of them. But heavy mortality in the age group 0—5 left its mark on the age structure of the next decade, and even that of the decade after the next. For instance, in Burdwan, Birbhum, Bankura, Midnapur, Hooghly, Howrah, 24-Parganas, Murshidabad, and Sikkim the age group 10—15 in 1931 was definitely proportionately smaller than in any other decade, and in 1941 the age group 20—30 was on the low side as between 1921 and 1951. The effect of the influenza epidemic will be more obvious when we come to discuss mean age in a later chapter.

134. As for the famine of 1943, this pestilence also was selective in its assault and marked down specific age groups for its victim uniformly in almost every district. These age groups are revealed in 1951 census as 5—10, 30—40 and 50—60. As the famine occurred eight years before followed by a devastating epidemic in 1944 which took away what the famine had spared but left debilitated, the age groups affected by the famine must have been 0—3, 23—33, 43—53. To a lesser extent age group 53 and over in 1943 was affected in the districts of Howrah, Calcutta, Nadia, Murshidabad, Malda, West Dinajpur, Jalpaiguri, Darjeeling and Cooch Behar.

135. The effect of the famine and epidemic of 1943-44 on specific age groups was not immediately apparent in 1945 when the Famine Inquiry Commission addressed itself to estimate mortality by age and sex. This is what the Report of the Famine Inquiry Commission records at page 111 of the Bengal Volume.

> The number of deaths in infants aged 1 to 12 months increased, but the total deaths under one year declined as a result of the reported fall in neo-natal mortality. A large number of deaths occurred in the age groups 1 to 5 and 5 to 10. The number of deaths in old people over 60 was also high, 247,556 as compared with the quinquennial average of 154,405. The age groups 1 to 10, and 60 and over contributed between them 274,810 of the excess deaths in 1943, but since the mortality in these groups is normally high, their excess mortality was slightly lower than that in the intermediate age groups.
>
> The greatest excess mortality in Calcutta was recorded in the age groups 1 to 5, 5 to 10, and over 60, the percentage increase in mortality in these groups being 223·1, 85·1, and 192·6 respectively. The mortality statistics thus confirm the impression that women, children, and old people were in the majority in the famine stricken population which sought food and relief in the capital. It may be added that the recording of deaths in Calcutta is likely to be more accurate than elsewhere in Bengal, since no dead body can be disposed of by cremation or burial without notifying the municipal health authorities.

136. The report does not mention the effect of the famine and epidemics on the mortality of age groups 23—33, and 43—53.

137. The fourth conclusion that may be drawn from Statement I.37 is that the Plantation districts of Jalpaiguri and Darjeeling are near the saturation point so far as the absorption of immigrant labour for manning the plantations is concerned and would probably now be

set for a period of natural growth rather than receive immigrants, were it not for the partition and the laying of the Assam Rail Link Project which have helped establish large colonies of immigrants again in the Siliguri subdivision of Darjeeling and in both subdivisions of Jalpaiguri, more particularly in Alipur Duars. Hooghly has not increased as much during 1941-51 as might be imagined, in spite of a few new industries in the district during the decade, notable ones being the Hindusthan Motor Works in Uttarpara, a few chemical factories in the Serampur area, the Dunlop Rubber Company in Sahaganj, and the Tribeni Tissue Mills in Magra. Displaced persons have contributed notable increases in rural areas of the district but industrial labour has not recorded any phenomenal increase. The increase in 24-Parganas and Calcutta is due more to the Displaced population than industrial labour, but Howrah has substantially increased its industrial labour population by expansion of various engineering industries in the city itself, in Bally and Bauria. Thus the fourth conclusion that may be drawn is that the plantation districts and those that have aged industrially are fast approaching their saturation point at which stage further growth or spillage into new areas is definitely slowing down. It is only in the Asansol subdivision of Burdwan that expansion of industries is still rapid and population is growing apace.

138. The fifth conclusion that may be drawn from Statement I.37 is that growth in 1931-41 in many districts far outstrips the normal extent of growth in other decades; the growth of this decade seems to call for re-examination to find out whether it was really as much as it was made out to be.

139. It is necessary to locate how much of the growth has been occurring in rural and urban areas, by which we can estimate trends in agricultural production and industrial growth as well as progress in miscellaneous services and other sources in the non-industrial towns. A comparative examination has already been made of increases in the density of predominantly rural police stations and those which have important industries and where it may be presumed that the population which feed those industries are scattered, however unevenly, over the greater portion of the surrounding police station area. Such an examination is in a way more satisfactory than what will be done now, because where a large industry is established its labour is scattered over a wider area,—provided, of course, communicating roads are good which the industry in its own interest undertakes to maintain,—than the narrow precincts of the adjacent or surrounding town.

140. Statement I.39, reproduced from the title page of Union Table A·II of the Tables Volume of this Report, differentiates the general rates of growth since 1901 into rural and urban rates.

STATEMENT I.39

Percentage variation of population 1901-51, Total, Rural, Urban

State, Division and District		1901 to 1951	without Displaced persons	without Displaced persons	without Displaced persons	1941 to 1951	1931 to 1941	1921 to 1931	1911 to 1921	1901 to 1911
West Bengal	T	+ 56·7	+ 43·4	+ 28·6	+ 4·0	+ 13·6	+ 23·6	+ 7·7	— 2·8	+ 6·1
	R	+ 35·9	+ 27·4	+ 18·7	+ 2·4	+ 8·5	+ 15·9	+ 6·4	— 2·8	+ 4·9
	U	+205·6	+153·5	+ 80·4	+ 10·9	+ 32·6	+ 64·1	+ 15·1	+ 7·8	+ 13·9
Burdwan Division	*T*	*+ 34·7*	*+ 31·5*	*+ 25·4*	*+ 5·4*	*+ 7·9*	*+ 19·0*	*+ 7·4*	*— 4·9*	*+ 2·8*
	R	*+ 23·4*	*+ 21·7*	*+ 19·5*	*+ 3·9*	*+ 5·4*	*+ 15·1*	*+ 6·2*	*— 6·1*	*+ 2·1*
	U	*+193·9*	*+169·4*	*+ 81·3*	*+ 15·9*	*+ 26·0*	*+ 56·5*	*+ 20·9*	*+ 9·6*	*+ 12·1*
Burdwan	T	+ 43·4	+ 37·1	+ 33·0	+ 10·8	+ 15·9	+ 20·0	+ 9·8	— 6·6	+ 0·4
	R	+ 29·6	+ 25·3	+ 24·9	+ 8·3	+ 12·0	+ 15·3	+ 8·0	— 7·0	— 0·1
	U	+273·5	+233·5	+122·7	+ 29·6	+ 45·2	+ 71·8	+ 35·7	+ 1·7	+ 8·6

STATEMENT I.39—concld.

State, Division and District		1901 to 1951	1901-51 without Displaced persons	1931-51 without Displaced persons	1941-51 without Displaced persons	1941 to 1951	1931 to 1941	1921 to 1931	1911 to 1921	1901 to 1911
Birbhum	T	+ 17·6	+ 16·8	+ 11·4	+ 0·6	+ 1·8	+ 10·6	+ 11·3	— 9·4	+ 3·7
	R	+ 11·1	+ 10·3	+ 6·9	+ 0·3	+ 1·0	+ 6·6	+ 11·6	— 11·0	+ 3·7
	U	+ 699·8	+ 640·4	+ 208·2	+ 0·7	+ 14·3	+ 189·0	— 11·4	+ 154·6	+ 5·1
Bankura	T	+ 18·2	+ 17·3	+ 17·8	+ 1·6	+ 2·3	+ 16·0	+ 9·0	— 10·4	+ 2·0
	R	+ 15·2	+ 14·6	+ 16·6	+ 1·7	+ 2·3	+ 14·7	+ 8·9	— 11·8	+ 1·7
	U	+ 77·6	+ 72·6	+ 36·7	— 0·0	+ 2·9	+ 36·8	+ 10·4	+ 0·4	+ 7·4
Midnapur	T	+ 20·4	+ 19·2	+ 18·8	+ 4·2	+ 5·3	+ 14·0	+ 5·0	— 5·5	+ 1·2
	R	+ 15·1	+ 14·3	+ 15·9	+ 2·7	+ 3·4	+ 12·0	+ 3·5	— 5·5	+ 0·7
	U	+ 181·4	+ 168·0	+ 73·8	+ 28·1	+ 34·5	+ 35·7	+ 43·1	— 4·9	+ 13·3
Hooghly	T	+ 48·2	+ 43·3	+ 34·0	+ 9·1	+ 12·8	+ 23·6	+ 3·2	— 0·9	+ 3·9
	R	+ 32·2	+ 29·8	+ 30·4	+ 8·5	+ 10·5	+ 20·2	+ 1·1	— 4·0	+ 2·6
	U	+ 157·6	+ 135·7	+ 55·0	+ 11·0	+ 21·9	+ 39·0	+ 13·5	+ 18·4	+ 13·1
Howrah	T	+ 80·5	+ 82·3	+ 41·1	+ 4·0	+ 8·1	+ 35·6	+ 10·2	+ 5·7	+ 10·9
	R	+ 61·5	+ 59·3	+ 27·3	+ 1·3	+ 2·7	+ 25·7	+ 8·3	+ 5·0	+ 10·1
	U	+ 196·3	+ 170·3	+ 86·7	+ 10·9	+ 21·6	+ 68·4	+ 16·8	+ 8·5	+ 14·3
Presidency Division	*T*	*+ 80·5*	*+ 56·3*	*+ 31·7*	*+ 2·8*	*+ 18·7*	*+ 28·1*	*+ 8·0*	*+ 0·3*	*+ 9·6*
	R	*+ 49·5*	*+ 34·5*	*+ 17·8*	*+ 0·7*	*+ 11·9*	*+ 16·9*	*+ 6·6*	*— 1·2*	*+ 8·4*
	U	*+ 210·4*	*+ 147·5*	*+ 80·1*	*+ 7·8*	*+ 35·1*	*+ 67·1*	*+ 12·9*	*+ 6·3*	*+ 14·0*
24-Parganas	T	+ 113·8	+ 89·3	+ 41·3	+ 11·2	+ 25·6	+ 27·0	+ 9·6	+ 0·4	+ 15·0
	R	+ 77·1	+ 66·0	+ 31·7	+ 8·0	+ 15·9	+ 21·9	+ 7·7	+ 4·9	+ 11·0
	U	+ 320·3	+ 226·5	+ 78·5	+ 21·7	+ 56·6	+ 46·7	+ 17·5	+ 13·3	+ 37·4
* **Calcutta**	U	+ 176·7	+ 129·7	+ 85·4	+ 0·3	+ 20·9	+ 84·9	+ 10·6	+ 3·4	+ 8·4
Nadia	T	+ 48·1	— 7·1	— 0·5	— 14·6	+ 36·3	+ 16·4	+ 1·4	— 8·3	+ 0·4
	R	+ 35·1	— 14·6	— 6·9	— 18·2	+ 29·4	+ 13·8	+ 0·7	— 9·2	+ 0·3
	U	+ 161·2	+ 57·9	+ 46·5	+ 8·2	+ 79·0	+ 35·4	+ 7·5	— 0·3	+ 0·5
Murshidabad	T	+ 29·7	+ 25·3	+ 20·9	+ 1·0	+ 4·6	+ 10·7	+ 12·0	— 9·0	+ 1·7
	R	+ 26·8	+ 23·5	+ 20·4	+ 1·3	+ 4·0	+ 18·9	+ 12·5	— 9·9	+ 1·2
	U	+ 77·8	+ 54·9	+ 28·1	— 2·4	+ 12·0	+ 31·2	+ 4·5	+ 5·3	+ 10·0
Malda	T	+ 55·3	+ 45·3	+ 21·8	+ 3·9	+ 11·0	+ 17·2	+ 5·0	— 1·8	+ 15·7
	R	+ 53·9	+ 44·9	+ 21·3	+ 4·0	+ 10·4	+ 16·6	+ 4·8	— 1·7	+ 16·1
	U	+ 102·0	+ 68·8	+ 40·4	+ 1·7	+ 29·4	+ 88·1	+ 14·4	— 4·8	+ 3·8
West Dinajpur	T	+ 57·8	+ 32·5	+ 15·5	+ 3·7	+ 23·5	+ 11·4	+ 6·8	— 3·8	+ 11·6
	R	+ 48·7	+ 27·9	+ 11·4	+ 1·2	+ 17·7	+ 10·0	+ 6·8	— 3·8	+ 11·6
	U	..	..	..	+ 207·2	+ 503·3	..	..	..	..
Jalpaiguri	T	+ 67·8	+ 49·7	+ 10·4	— 3·5	+ 8·1	+ 14·4	+ 6·5	+ 6·0	+ 21·4
	R	+ 58·7	+ 45·4	+ 7·9	— 5·0	+ 3·7	+ 13·6	+ 6·0	+ 4·6	+ 21·5
	U	+ 542·9	+ 277·3	+ 104·7	+ 39·8	+ 138·2	+ 46·4	+ 28·0	+ 25·9	+ 14·3
Darjeeling	T	+ 78·7	+ 72·4	+ 34·4	+ 14·1	+ 18·3	+ 17·7	+ 13·0	+ 6·5	+ 6·6
	R	+ 54·0	+ 52·0	+ 25·4	+ 8·8	+ 10·2	+ 15·2	+ 8·7	+ 5·4	+ 5·8
	U	+ 341·6	+ 289·5	+ 91·6	+ 43·2	+ 92·4	+ 33·8	+ 51·5	+ 16·8	+ 14·9
Cooch Behar	T	+ 18·4	+ 0·8	— 3·8	— 10·9	+ 4·7	+ 8·5	— 0·3	— 0·1	+ 4·6
	R	+ 12·3	— 2·0	— 6·7	— 12·6	+ 1·1	+ 7·2	— 0·4	— 0·3	+ 4·4
	U	+ 256·9	+ 144·8	+ 90·9	+ 28·3	+ 87·1	+ 48·8	+ 4·5	+ 9·3	+ 12·3
Chandernagore	U	+ 86·0	+ 66·7	+ 64·1	+ 16·9	+ 30·4	+ 40·4	+ 7·2	+ 6·5	— 5·7
Sikkim	T	+ 133·4	+ 133·2	+ 25·4	+ 13·8	+ 18·3	+ 10·7	+ 34·4	— 7·1	+ 49·0
	R	+ 128·7	+ 128·7	+ 22·9	+ 11·1	+ 11·1	+ 10·7	+ 34·4	— 7·1	+ 49·0
	U	..	..	..	..	..	..	..	..	..

141. The contrast between rural and urban growths is as profound as it is instructive. For West Bengal as a whole, the rural growth has been as little as 35 per cent. on the 1901 rural population in the course of 50 years, and this too, with a large Displaced population, without which the rate of growth is only 27·4 per cent. By contrast urban growth, with Displaced persons, has been as much as 205·6 per cent. of the urban population of 1901, and even without Displaced persons, as considerable as 153·5 per cent. In very few

districts, indeed, has rural natural growth exceeded ½ per cent. per annum on the 1901 population and in the predominantly agricultural districts of Birbhum, Bankura, and Midnapur, it has been very much less. By contrast, nowhere in the selfsame districts have towns increased by less than one per cent. per annum on the 1901 population; and increases are more than as much again as the 1901 population in Midnapur, Hooghly, Howrah, and Cooch Behar. In Burdwan, Birbhum, 24-Parganas, Jalpaiguri and Darjeeling, the urban increases are several times of the 1901 urban population.

142. A very curious and rather incredible picture is presented by Calcutta. It is supposed to have grown as much as 84·9 per cent. between 1931 and 1941 on its 1931 population, but only by as little as 0·3 per cent. in the next decade on its 1941 population, excluding the Displaced population but not other categories of immigrants. The city of course lost some of its population by the emigration of Muslims in the last four years but common experience and official figures do not warrant one to suppose that this emigration has been on such a considerable scale as to explain a practically stationary population during the last eventful decade. Besides, common memory of the decade 1931-41 also requires that a growth of 84·9 per cent. during that period, in which the movement of population was nothing extraordinary, cannot be accepted without proper scrutiny.

143. So much for a general survey of the growth of population in the State over the last half century. It is necessary now to consider each district separately to assess the growth of population in its different subdivisions, police stations, and rural and urban areas. It is well to take the districts in the order they have been arranged since 1911. In the statements that follow for each district the area and jurisdiction of police stations and subdivisions for past decades have been adjusted to their present ones. Their populations accordingly have also been adjusted. In tables dealing with proportions of age groups and married women in districts affected by the partition of 1947 the age classifications have been based on their unadjusted populations before the partition up to 1941. In the tables on migration between a district and other States and outside immigration and emigration figures have everywhere been adjusted to correspond to the present limits of West Bengal. But the figures of emigrants from any district in 1931, 41 and that of emigration in 1951 are estimated by extrapolating a simple quadratic equation for the State as a whole and applying a multiplying factor for each district. In tables dealing with migration between a district and other districts of the State unpartitioned Bengal has been considered up to 1921 and the present limits of West Bengal in 1951.

144. Statements I.40, 44, 48, 52, 56, 60. 64, 72, 76, 80, 84, 88, 94 and 98 will be found together at the end of the section. As the populations in them have been adjusted with reference to their 1951 jurisdictions there will be slight variations from figures published elsewhere in the Tables Volume as well as previous census reports. But these variations are insignificant.

Burdwan

145. Statement I.40 is for the police stations and subdivisions of the district the same kind of statement as No. I.37 is for the State, divisions and districts. The statements bring out very forcefully the very different patterns of growth first between 1872 and 1921 and then between 1921 and 1951. Between 1872 and 1921 every police station in the Sadar and Kalna subdivisions and Ketugram police station in Katwa subdivision suffered heavily, and the population in 1921 was anything between a third and a tenth less than in 1872. Katwa and Mangalkot police stations in Katwa subdivision managed to show

small net increases during 1872-1921 but suffered nevertheless from the same type of malady. All the three police stations of Kalna subdivision suffered heavily, but Khandaghosh, Jamalpur and Ausgram in Sadar subdivision suffered little less. The decimation of population started in 1862 with the advent of the Burdwan Fever which took heavy tolls of human lives up to 1878 and seriously interrupted the birth rate. The causes most generally assigned were over-population, obstruction of drainage caused by the silting up of rivers and railway embankments of the East Indian Railway which was inaugurated up to Raniganj in 1854-55, water-logging of the country east of the railways, and the consequent saturation of the country with retained moisture. The fever, from all reports, appears to have been both malignant and benign types of malaria, and from the great work carried out by C. A. Bentley on the correlation of malaria with lack of irrigation and drainage, and the spleen index, it may be safely concluded that malaria continued to take heavy and constant tolls in the whole area up to 1921. In 1891-1901 crops were good as a rule, having been short only in 1895-96, and cultivators benefited by the rise in prices. There were few landless labourers except such as obtained remunerative employment in coal mines in Asansol. Between 1901 and 1911 there were repeated epidemics of cholera, those of 1907 and 1908 being especially virulent, while malaria continued to levy its annual toll. Some scarcity was felt in 1904, and in the Katwa subdivision in 1908. The supply of agricultural labourers continued to be unequal to the demand in the sowing and harvesting seasons, and wages consequently went up. Between 1911 and 1921 every part of the district except the industrial area of Asansol subdivision suffered from a decrease in population. The decrease ran very high in the parts of the Sadar subdivision adjoining Bankura district, but much lower in the south-east corner. The three eastern subdivisions suffered most from the floods in 1913 of such rivers as the Damodar, Ajay, Khari, Kumar and Bhagirathi. From the water-logged condition in which so much of these subdivisions lay so many months of the year, they were full of malaria, and they also suffered badly in the influenza epidemic. There were floods again in the Ajay and Damodar in 1916-17, 1917-18, and 1918-19 and in 1920-21 inundations in some parts caused extensive damage to crops. But towards the close of the decade there were signs of relief from malaria and some hope of security from disastrous floods after the systematic repair of the embankment of the Damodar by Government, the opening of the Ahmadpur-Katwa railway in 1917-18 the Bankura Damodar River Railway in 1913-14, the Burdwan-Katwa railway in 1915, the Howrah-Burdwan Chord railway in 1917 and the Bandel-Nabadwip-Katwa railway in 1912. In the Katwa and Kalna subdivisions also there was genuine progress attributed to a general improvement in the health of the people and in the economic condition of the agriculturists. Strenuous public health measures consisted particularly in anti-malarial measures in some of the worst villages, improvement in the supply of pure drinking water, the opening of mufassil dispensaries, free distribution of quinine, vaccination and inoculation and prompt prophylatic measures taken by the district board against epidemics. All this good work was continued in 1931-41 and improved upon, although the fall in agricultural prices during the decade did not give full play to the growth of the population. Then again in 1932-33 and 1935-36 there were droughts affecting parts of the district and in 1934-35 there was a severe flood caused by a breach in the Damodar embankments inflicting extensive damage to crops on either side of the river. Between 1941 and 1951 there was a failure of crops in certain parts in 1940-41. The Damodar Flood of 1943 did not inflict much loss of life, although a great deal of property was damaged. As Burdwan is a rice-growing district it did not greatly suffer from the famine of 1943 but in the following year the epidemics took a toll of about double the average yearly loss by death. The cyclones of October 1942 and June 1950 inflicted damage on property. After the riots of 1946 in Bihar, a few colonies of Bihari Muslims were established in Asansol subdivision and Burdwan, but almost all of them left the district before the Partition. Between 1947 and 1951 Katwa, Kalna, and Sadar subdivisions received a steady stream of Displaced persons which swelled the population of the district at the last census. These are some of the reasons responsible for the steady increase of population in the three subdivisions between 1921 and 1951. In recent years a very great deal has been done to rid Sadar, Kalna and Katwa subdivisions of malaria and epidemics and the Community Development Project Administration having selected Saktigarh and Gushkara areas in the heart of the rice plain, further improvement in the economic situation of the district is expected. The newly developed areas are likely to attract industries and introduce a ferment in the social and economic life of the eastern part of the district, where things have been so stagnant that even an agitation on the social plane and a stress and strain on the economic plane will surely act as a leaven to greater activity. And activity is what is primarily wanted in that tract to restore health and make it grow. This the Project areas hold out a promise of doing. Settlements of Displaced persons in the Katwa, Kalna and Sadar subdivisions will lead to destruction of scrub jungle and filling up of breeding places for malaria and the next ten years will probably see increased cultivation and a considerable increase in population by natural growth.

146. The picture is quite different, however, in Asansol subdivision where ever since 1872 there has been uninterrupted increase from decade to decade. In fact the growth has been nothing short of phenomenal. Between 1872 and 1921 it was 69·7 per cent. of its 1872 population, maximum growths of 171·3 per cent. having been recorded in Salanpur, Kulti, Hirapur, Asansol and Barabani, and a much lower but appreciable growth of 43·3 per cent. having been registered in Jamuria, Raniganj, Ondal and Faridpur police stations. Only Kanksa, which is on the border of Sadar subdivision, conformed to the pattern of decline in the latter. But between 1872 and 1921 only the coal mines were developed, and what came after 1921 was more spectacular. A vast number of big and small industries grew up in the coal area which increased the population of the subdivision by 90·4 per cent. in 1951 of what it was in 1921. Looking at it another way, the population of the subdivision was more than doubled between 1901 and 1951.

147. That even the stamina of the population has improved between 1921 and 1951 with a tendency for the average unitary family to grow in size during the same period is demonstrated in the following statement. It shows that the size of the young population, although it looks as though it is decreasing, may not be actually doing so because of the losing relation its ratio bears to the increasing adult immigrant population in some parts of the district. That of the working age shows a slight increase during 1921 and 1951 from what it was before. The percentage of total number of children aged 0-5 to total married women aged 15 to 40 also shows a slight increase independently of the proportion of married women of those ages to the total population. The increase as reflected in Statement I.41 indicates bigger families and more children in recent decades which fact is masked by the increasingly greater proportion of adult immigrants in the population of Asansol in recent decades.

STATEMENT I.41

Percentage of age and of married women (15-40) to total population and of children) to married women (15-40) in Burdwan, 1901-51

Years	Percentage of persons, males and females to total population						Percentage of married women (15-40) to total population	Percentage of children (0-5) to total married women (15-40)
	Age group 0-15			Age group 15-60				
	P	M	F	P	M	F		
1	2	3	4	5	6	7	8	9
1901 . . .	35·0	35·9	34·0	59·5	59·6	59·3	15·7	75·4
1911 . . .	35·4	36·4	34·5	59·4	59·1	59·5	16·6	67·8
1921 . . .	33·4	34·2	32·5	62·3	62·0	62·6	17·1	54·5
1931 . . .	34·8	35·0	34·8	61·7	61·9	61·2	17·3	75·6
1941 . . .	34·9	34·1	35·6	61·6	62·8	60·4	16·8	69·1
1951 . . .	34·9	34·4	35·5	60·6	60·8	60·4	17·2	78·2

148. The effect of the influenza epidemic on the younger population aged 0-15 in 1921 is remarkable, as also on the percentage of children aged 0-5 to mothers aged 15-40. An explanation is not readily available for the pronounced depression in the figures in column 9 for 1941: this feature seems to be common to all agricultural districts of the State. If the influenza epidemic of 1918-19 had taken, as indeed it did, a heavy toll of young girls aged 0-3, the age group 22-25 among women in 1941 would at least be smaller than normally, and this factor would be likely to increase the ratio in column 9 rather than decrease it, as it actually has. The figures for 1931 rather suggest the effects of the influenza epidemic in lowering the population of mothers in 1931 and thus raising the proportion of young children aged 0-5 correspondingly. The only plausible presumption that might be offered is that the census record in 1941 was recklessly inflated by spurious entries for this particular type of population, which being, according to the custom of the land mostly in *purdah*, successfully eluded the scrutiny of the checking officers especially in agricultural districts, where *purdah* is more inviolable than in industrial ones. The law was that no census officer should ask to see any woman who was not voluntarily produced before him.

STATEMENT I.42

Immigration and emigration in Burdwan from and outside the State, 1891-1951

	1951	1941	1931	1921	1911	1901	1891
Actual Population	2,191,667	1,890,732	1,575,699	1,434,771	1,533,874	1,528,290	1,391,880
Imigration	346,087	182,500	115,886	94,698	82,486	77,233	22,207
Emigration	31,093	18,564	15,569	17,000	29,003	8,398	7,625
Natural Population . . .	1,876,673	1,726,796	1,475,382	1,357,073	1,480,391	1,459,455	1,377,298
Percentage variation . . .	+8·7	+17·0	+8·7	—8·3	+1·4	+6·0	..

149. In this statement immigrants refer to persons who were born outside West Bengal and *not* to persons born outside the district. The figure of immigrants for Burdwan for 1951 includes 96,105 Displaced persons from Pakistan. Emigrants similarly refer to persons who have migrated outside the State and *not* outside the district. The natural population refers therefore to the population born in West Bengal but counted in Burdwan.

150. That there is a great deal of casual, temporary, periodic, or

semi-permanent migration between Burdwan and adjacent districts and other districts of the State is borne out by the following statement of *unadjusted* figures taken from census reports.

STATEMENT I.43

Migration between Burdwan and other districts of Bengal in 1891-1921 and West Bengal in 1951

Year	Immigration				Emigration			
	From contiguous Districts		From other districts		To contiguous Districts		To other districts	
	M	F	M	F	M	F	M	F
1891 . . .	33,813	42,830	2,315	2,227	32,376	36,182	25,807	18,261
1901 . . .	49,925	58,270	22,414	11,002	20,497	31,558	19,627	14,334
1911 . . .	37,000	49,000	6,000	5,000	20,000	42,000	21,000	14,000
1921 . . .	37,000	48,000	8,000	6,000	15,000	27,000	17,000	11,000
1951 . . .	52,970	62,763	18,359	19,450	21,435	37,449	35,107	18,115

151. The statement shows that inter-district migration is fairly uniform from year to year. The district enters into reciprocal marriage relations with others, and brides are sent out and brought in almost to an equal extent. But male immigrants in search of employment are on the increase since 1921. It also shows that the bulk of the total immigrant population into the district has always been from outside Bengal.

Birbhum

152. Statement I.44 for Birbhum corresponds to Statement I.40 for Burdwan. It repeats in subdued tones the picture of growth discussed regarding Burdwan : a reduction amounting to about a tenth of the 1872 population at the end of 50 years in 1921 in the Sadar subdivision and an increase of 16·6 per cent. between 1872 and 1921 in the Rampurhat subdivision ; but steady increase to the extent of 25·3 per cent. between 1921 and 1951. Rampurhat has been the healthier of the two subdivisions, like Asansol in Burdwan. Between 1872 and 1881 the dreaded Burdwan Fever took a heavy toll which continued into the next decade in the Sadar subdivision. After 1891 there was great improvement in the health of the people and the epidemic disappeared. There were short crops in 1891, 1895, and 1896 but there was no serious distress. In other years the outturn was good, and the cultivators benefited by the rise in prices. Their material condition thus improved considerably. Landless labourers obtained remunerative employment in the coal mines of Asansol. But Birbhum, being entirely dependent on agriculture, the growth of its population seems to vary directly with the state of agriculture. A serious flood in the Rampurhat subdivision in 1902 caused great loss to cultivators. There were short-crops in 1906 to 1908 and some scarcity in 1908-09. The health of the district was generally good, except in 1906-08, when it suffered from a wave of fever and epidemics of cholera, which resulted in heavy mortality. Between 1911 and 1921, almost every part of the district lost equally. The Sadar subdivision suffered severely from floods between 1911 and 1913. There was malaria and the district was hard hit by influenza. Aboriginal tribes seem to have suffered more severely in the epidemic everywhere, and those in Birbhum were no exception to the rule. Between 1921 and 1931 immigration of Santals, Koras and other aboriginal labourers from Bihar continued, and the healthiness of Rampurhat and Nalhati is said to have encouraged immigration into these two

thanas. There was also a stimulus from industrial developments and the establishment of a railway settlement in Rampurhat. Sainthia and Ahmadpur developed as trading centres and opened several rice mills. A healthy climate prevailed throughout the decade and except for an acute spell of distress in Rampurhat subdivision in 1934 extensive damage caused by a flood in 1939, and a pretty severe scarcity due to drought in 1940, the factors mentioned above generally continued to operate in the decade 1931-41 causing almost as big an increase in the population of the district as in 1921-31. Between 1941 and 1951 however, the famine in 1943 and epidemics in 1944 took a heavy toll and sapped vitality as a result of which it took about four years to restore an excess of births over deaths. There were two small floods one in 1946 which affected about 30 square miles and washed away embankments on the Ajay worth about Rs. 195,000, and another in 1949 affecting about 40 square miles. None of them caused any loss of human life but some valuable cattle was lost. In 1948 the Mayurakshi Project Administration started building dams, barrages and sluices, excavating canals, making roads and bridges on an extensive scale in the western half of the Sadar subdivision, on account of which there was a large influx of construction-al labour. This has partly masked the effects of the famine and epidemic of 1943-44. Agriculture in the district is so poor and the soil has been so worn out that it cannot bear densities much above 300-400 per square mile. The district has periodically got rid of populations in excess of this average density on the pretext of the slightest disturbance in the salubrity of the climate. Even Rampurhat, of which Nalhati and Murarai police stations are supposed to be two healthy and agriculturally prosperous police stations, has grown at a rate less than one per cent. per annum over any twenty-year period. The people do not seem to have any reserves of stamina either and are easier preys to epidemics than in the neighbouring districts of Burdwan and Murshidabad.

153. In 1932 the Settlement Officer of Birbhum, B. B. Mukherji, elucidating, how the extension of cultivation in each area of the district was almost in a direct ratio to the density of the population had the following conclusion to offer:

> If one considers that the growth of population bears reasonably directly on the means of subsistence a review of 30 years in the variation of population seems to indicate that the maximum pressure—for a purely agricultural people—and the largest bulk is absolutely dependent on agriculture—with the soil as that of Birbhum and the capacities as that of the Birbhum agriculturist and under conditions physical, financial and social under which they labour—has practically been reached . . . . Mere extension of cultivation —of which, as stated, the margin is not much—has little possibility of growth.

154. The district has no great industrial importance, and even the old railway settlement of Rampurhat is threatened on account of the shifting of the local headquarters to Barharwa and further away out of the State. The Mayurakshi multi-purpose irrigation project, however, is responsible for giving Suri town a fresh lease of prosperous life by the establishment of a large and prosperous suburb, and its irrigation channels are expected to irrigate 600,000 acres in 1955-56. Already since 1950, 100,000 acres have been brought under its irrigation scheme leading to an appreciable improvement in the yield per acre. The Community Development Project Administration has selected three areas, Ahmadpur, Muhammadbazar and Nalhati for intensive development and it looks as if the long and basic malaise of this district, which, like Bankura, given the water and adequate soil protection in the upper reaches can yet get over, is at last going to be combated and subdued. The Project areas and the Mayurakshi project will inject a stimulus and a welcome stress and strain

in the social and economic spheres of the district, dissolve its atrophy and stimulate a healthy circulation of population. As will be presently seen the village in Birbhum is more genuinely a shut-up box than any village in the State, and allows the minimum of migration, and, these improvements may help to loosen the district from the mortal coils of a poor deteriorating productivity which has for so long kept down the growth of its population. Improvements in the public health of the district have made rapid strides since 1947, and these together with more food are going to tell in an appreciable manner in reducing the death rate. The prospect between 1951 and 1961 is thus a more rapid increase in population than in 1931-41, once periodically recurring droughts and scarcities are eliminated. It is possible to predict an appreciable increase in the productivity of the soil with its ability to bear more persons per square mile than ever before. The whole of Birbhum will therefore be in a similar situation as the Sadar subdivision of Burdwan was in 1921-41, after the Damodar Canals had been thrown open. Only its growth will be more accelerated than the latter region on account of improvements in public health and distribution of food.

155. The district was early thrown open to railway by the Ajay-Sainthia railway line in 1859, the Sainthia-Tinpahar line in 1860, the Ondal-Sainthia line in 1906, and the Ahmadpur-Katwa line in 1917-18.

156. Statement I.45 corresponds to I.41 for Burdwan. It shows the poorer stamina of the population in Birbhum which is accentuated by the absence of a large adult immigrant working population which might reduce the proportion of the young population of ages 0-15 and correspondingly increase the proportion of the working ages 15-60. The statement shows how unfavourably Birbhum stands with Burdwan, and, how comparatively young its population is. In this respect it compares more nearly with Bankura and Midnapur.

STATEMENT I.45

Percentage of age groups and of married women (15-40) to total population and of children (0-5) to married women (15-40) in Birbhum, 1901-51

Year	Percentage of persons, males and females to total population						Percentage of married women (15-40) to total population	Percentage of children (0-5) to total married women (15-40)
	Age group 0-15			Age group 15-60				
	P	M	F	P	M	F		
1	2	3	4	5	6	7	8	9
1901 . . .	38·3	39·6	37·2	56·0	55·5	56·4	16·4	82·1
1911 . . .	37·6	38·7	36·7	57·0	56·5	57·4	17·0	70·2
1921 . . .	34·0	35·1	32·7	61·7	61·0	62·6	17·9	55·1
1931 . . .	37·4	38·2	36·5	58·8	58·3	59·5	18·0	82·8
1941 . . .	37·2	38·5	35·9	58·3	57·5	59·1	17·5	72·3
1951 . . .	37·5	38·5	36·4	58·9	58·2	59·7	17·4	78·6

157. The statement, read with the brief account of the district just outlined. illustrates only too painfully clearly how abject a prey the population of the district is to every little change in the food situation or to every little natural calamity. The lean decades ending 1901 and 1911 led to increases in the young population but decimation of the working and older ages. The flood and epidemic decade ending 1921 took a heavy toll of young lives in 1921 and their effects were reflected in the age group 15-60 in 1931, while the decade ending 1931 showed an increase in children. The distresses of 1934, 1939, 1940 and 1943-44 did not so much affect the younger population as the older, but they had a depressing influence on populations over 15 years of age.

Throughout 1921-51 Birbhum produced a good crop of babies which were however periodically removed by death. Thus the population in Birbhum has been a weathercock of the district's agricultural production and natural calamities. The figure in column 9 for 1941 suggests a similar source of fictitious inflation in the census of 1941 to that indicated for Burdwan.

STATEMENT I.46

Immigration and emigration in from and outside the State, 1891-1951

	1951	1941	1931	1921	1911	1901	1891
Actual population	1,066,889	1,048,317	947,554	851,725	940,162	906,891	798,254
Immigration	48,021	31,550	30,567	28,260	34,750	32,508	5,803
Emigration	17,230	10,287	8,627	8,000	17,000	5,555	3,816
Natural population . . .	1,036,098	1,027,054	925,614	831,465	922,412	879,938	796,267
Percentage variation . . .	+0·9	+11·0	+11·3	—9·9	+4·8	+10·5	..

158. This statement and others that follow one for each district are to be read with the same reservations as made in connexion with Statement I.42. Immigrants in 1951 include 11,783 Displaced persons. No Muslim according to the West Bengal Government is reported to have migrated from the district as a consequence of disturbances after the partition of 1947. Taken as a whole this statement indicates that the district is a very stay-at-home one so far as other states are concerned, and even the recently developed industries and construction work in connexion with the Mayurakshi project have not been exciting enough to attract more immigrants. The poor quality of the soil, the paucity of trade and the lack of culturable land have been responsible for a small influx of Displaced persons. Statement I.47 shows marriage and other short-term migrations between Birbhum and other districts of Bengal in 1891-1921 and West Bengal in 1951.

STATEMENT I.47

Migration between Birbhum and other districts of Bengal in 1891-1921 and West Bengal in 1951

Year	Immigration				Emigration			
	From contiguous districts		From other districts		To contiguous districts		To other districts	
	M	F	M	F	M	F	M	F
1891 . . .	15,105	23,363	1,245	1,122	9,623	15,669	3,169	3,038
1901 . . .	21,240	30,198	4,540	2,450	12,453	20,929	4,509	3,915
1911 . . .	10,000	16,000	2,000	1,000	11,000	15,000	4,000	3,000
1921 . . .	7,000	15,000	1,000	2,000	10,000	16,000	5,000	4,000
1951 . . .	5,892	21,259	2,761	2,826	22,960	29,355	15,166	71,885

159. The statement shows that this Little Jack Horner of a district does not even contract marriages outside its precincts as much as it ought to, and that immigration has greatly contracted since 1901. It is not much of an emigrating country either, except what goes out by marriage and to the neighbouring districts of Burdwan and Murshidabad in search of a living. But its inhabitants are careful enough not to venture out much farther than contiguous districts. Even in 1951 the district sent as few as 5,020 males and 2,688 females to no less an area than the city of Calcutta, for a place in which other districts engage in a regular scramble. Long decades of disease and undernourishment have stifled its spirit of enterprise.

Bankura

160. Statement I.48 shows the progress of population since 1872. Although the

district does not show a net loss during 1872-1921 but on the contrary a small gain of 5·3 per cent. on the 1872 population over the fifty-year period, its record during 1921-51 has been much brighter, during which it has grown about 1 per cent. per annum. But looking back on the past in another way and taking cross sections from either period, the fifty years 1901-51 have been disappointing registering a small increase of 18·2 per cent. on the 1901 population. The record for 1872-1951 might have been far worse had the district been visited all over by the Burdwan Fever.

161. Before proceeding to an account of the district as it has fared from decade to census decade, it is necessary to make a note of certain conditions in it that have obtained from before 1872 and contributed to the malaise from which it has suffered. These contributory causes have been best elaborated in the Settlement Report for the district produced in 1926 and the following is borrowed from that report.

162. The greatest change that came over the district from the time of the Revenue Survey in the 1850's was the cutting down of the forests. In other districts, deforestation usually connotes increase in cultivation and a general rise in the economic condition of the people. In Bankura no such fortunate results were obtained. Although everywhere increases in the land under cultivation is apparent, the district is not supporting a proportionately larger population. It is true that in the Sadar subdivision where there has been most cutting down of jungles, there was an increase of 24·3 per cent. between 1872 and 1921. But this is a small increase for such a long period, and at the same time the population of Vishnupur subdivision decreased by 20·6 per cent., which is dreadful to contemplate. Malaria is usually rife in the Vishnupur subdivision and Onda. The west of the district is healthy, and the town of Bankura has long been famed as a health resort. Here the undulating country and the red soil afford good drainage, but in the east the soil is alluvial and the country becomes easily waterlogged in the rains, and this perhaps accounts to some extent for the unhealthiness of the area. Only very recently in 1950-51 an extensive DDT campaign has been very successful in ridding this area of the dread disease. Another serious change that has come over the district after 1870 has been the deterioration of the rivers. The Damodar used to be navigable up to Mejhia, and until the East Indian Railway was opened in 1855 coal was carried away from the Raniganj collieries by boats; but no boats are to be seen now in any part of this district. Even the Dwarakeswar was navigable up to Bankura for part of the year until about 1880, although from the present condition of the river it is hard to imagine that this could have been so. The deterioration of the rivers has been partly due to the denudation of the forest land, but in the case of the Damodar its navigability has been destroyed by the construction of embankments in Burdwan and other districts lower down. At the time of the settlement only 45 per cent. of the land was cultivated in the Sadar subdivision and in Vishnupur only 52. The cutting down of forests led to increase in the area of cultivation but obviously the produce of the soil did not improve commensurately to support a larger population. Vast areas of land either barren, or producing only a miserable kind of jungle or crop, present a sad aspect. Afforestation in the upper reaches and an adequate supply of water through irrigation channels are what are actually needed.

163. The most important feature of the Settlement Report was the exposure of the way in which the former cultivating proprietors and ryots holding occupancy rights with low cash rents were being acquired by money-lending landlords who then proceeded to settle the land with its former proprietors or

occupancy ryots at iniquitously high *sanja* rents. This was an evil directly consequent on the low productivity of the soil. The *sanja* or produce rent is a serious evil. It keeps the cultivator under an ever-increasing load of debt and prohibits any form of agricultural development. The serious dimensions already attained by this evil can be gauged from the fact that in 1926 one-fourth of the settled ryoti land was held either on produce rent or produce rent supplemented by a cash payment. Both of these kinds of rent were steadily increasing at that time. A most surprising feature supporting the above observation was the unusually large proportion of land in the direct possession of proprietors and tenure holders. No less than 49·5 per cent. of the land compared to 30·5 per cent. only in Midnapur, was accounted for in this way, which is very much higher than in any other district of West Bengal. Of course this was partly due to the large area of jungle, but even allowing for this, the percentage of the total area of the district which was in the hands of proprietors and tenure-holders and was fit for cultivation was 23. Only 46·5 per cent. was in the hands of ryots and under-ryots; and of this 10·3 per cent. was held by ryots at fixed rents. This is bad enough but the worst feature of the rent system of Bankura is the prevalence of rent which consists of fixed quantity of produce per bigha, known as *sanja.* No less than 11 per cent. of the total area in possession of settled ryots is held on this system, whereas in Midnapur, the only other district of West Bengal in which it is of any importance, the proportion is 4. *Bhag* rent which consists of a proportion of the crop, generally half, accounts for a further 5 per cent., and mixed cash and produce rents for 9 per cent. There is no doubt that these forms of rent are a most unfair burden on the ryot. *Sanja* is generally equivalent to one third of the crop in a normal year and it has to be paid in good and bad years alike, while the mixed rent often represents an even higher proportion. It seems that *sanja* and mixed rents at least are recent innovations due to the purchase and resettlement by mahajan landlords of ryoti holdings originally paying a low money rent. Taken in conjunction with the other tendency noted above of such landlords to keep the purchased holdings in their direct possession, it points to a persistent degradation in the position of the cultivating classes which is rapidly reducing them to helpless dependence on a small class of grasping usurers. This state of things has always had a more serious effect on the growth of population than is readily appreciated.

164. The Burdwan Fever was introduced into Bankura by way of Galsi and Khandaghosh police stations in Burdwan, but the headquarters subdivision never suffered from the disease, and its population increased between 1872 and 1891, while that of the Vishnupur subdivision, in spite of the superior fertility of the soil, declined Between 1894 and 1897 mortality was comparatively high, and cholera was unusually prevalent, but in spite of this the recorded birth-rate exceeded the death rate throughout. The people suffered considerably from scarcity during 1896 and 1897, but on the whole crops were good and the material condition of the people improved. Between 1901 and 1910 conditions were on the whole favourable to further growth. The Bengal Nagpur Railway had opened in 1898 and the public health was good during the first 7 years. At the close of 1907, however, the crops failed over a large area, the parts most affected being Raipur, Onda and Khatra police stations. Distress was felt from January till September 1908, when the death-rate exceeded the birth-rate. Between 1911 and 1921 the population of the district decreased and in 1915-16 there was so serious a failure of crops that, before the middle of 1916, a famine was declared. As a matter of

fact famine conditions had prevailed for several months previously. Relief works, the largest of which was the re-excavation of the old irrigation channel known as the Subhankari Danra, were reopened. The Bankura-Damodar River railway, opened in December 1916, was then under construction and gave employment to many cultivators, and 4,500 Bankura people were recruited for the tea gardens in Assam against less than 200 in the year before. Famine conditinons continued in Bankura until the winter harvest of 1916. The district suffered very severely from the influenza epidemic, coming as it did after famine had sapped the vitality of the population. The hand-weaving industry is an important one in Bankura, and a systematic employment of the industry did much at that time to help the people engaged. Between 1921 and 1931 malaria raged in an endemic form. Although economic distress led to some emigration in search of labour in other districts, the establishment of mills and factories attracted labourers from outside. In Onda and Chhatna police stations mills were opened and the manufacture of bell-metal was encouraged. There was a good deal of preventive work against malaria, small-pox and other epidemic diseases owing to the opening of health centres and the improvement of village sanitation in Gangajalghati, Barjora, Saltora, and Mejhia police stations. Ranibandh, Raipur, and Simlapal remained free from epidemic diseases and enjoyed a succession of good seasons and improvement of village sanitation. Between 1931 and 1941 there was a combined flood and drought in 1934 affecting almost half the district and half the population. Between 1941 and 1951 the chief events were the famine of 1943 and the epidemic year of 1944 which were responsible for decreases in population in Onda, Gangajalghati, Mejhia, and Saltora police stations in Sadar subdivision and Jaypur, Sonamukhi and Patrasair police stations in Vishnupur subdivision. The decrease in Mejhia and Saltora in spite of the mines and mills is all the more appalling.

165. In a good year the outturn of the rice crop is high, but, unlike the rest of the State, Bankura runs the risk that a dry season or an early cessation of the rains may produce a drought which will ruin the crop. The uplands drain well but the water-logged plains of Vishnupur subdivision which lies half way down the strip of country running north and south through western Bengal against the edge of the uplands, are ill-drained and liable to floods the effects of which are accentuated by dams and weirs placed across the rivers and creeks for irrigation purposes. They make it a very malarious part of the State.

STATEMENT I.49

Percentage of age groups and of married women (15-40) to total population and of children (0-5) to married women (15-40) in Bankura, 1901-51

Year	Percentage of persons, males and females to total population						Percentage of married women (15-40) to total population	Percentage of children (0-5) to total married women (15-40)
	Age group 0-15			Age group 15-60				
	P	M	F	P	M	F		
1	2	3	4	5	6	7	8	9
1901 . . .	40·0	41·9	38·2	54·6	53·6	55·5	15·7	86·5
1911 . . .	38·9	40·4	37·3	55·9	55·1	56·8	16·3	76·2
1921 . . .	36·9	38·1	35·7	58·6	58·0	59·1	16·0	66·5
1931 . . .	37·6	38·8	36·2	58·4	57·6	59·4	16·9	82·5
1941 . . .	37·0	37·6	36·5	58·5	58·2	58·8	16·1	77·1
1951 . . .	41·2	43·4	38·9	52·5	52·0	52·9	13·6	108·7

166. The statement demonstrates more clearly than the one for Birbhum the vulnerability of the population to any natural calamity and shows the comparatively low mean age of the population. It also shows how at the end of each decade a crop of young children helps to show growth instead of decrease for the district in the ensuing census. It shows how the population reacted to the punishing decades of 1891-1901 and 1911-21. It also shows the false inflation of married women in the 1941 count. It shows what an appalling effect the famine and epidemics of 1943-44 had on the population of working age. The reduction is quite dreadfully reflected on the ratios. A big crop of young children born after the famine has helped the district to tide over the census of 1951. There has been almost a plethora of young children born to a heavily reduced population of mothers: traces of Nature's hectic recovery plan.

STATEMENT I.50

Immigration and emigration in Bankura from and outside the State, 1891-1951

	1951	1941	1931	1921	1911	1901	1891
Actual Population . . .	1,319,259	1,289,640	1,111,721	1,019,941	1,138,670	1,116,411	1,069,668
Immigration	30,350	20,850	14,645	11,761	13,932	11,195	2,878
Emigration	59,238	35,368	29,661	29,000	56,000	22,112	11,060
Natural Population . . .	1,348,147	1,304,158	1,126,737	1,037,180	1,180,738	1,127,828	1,077,850
Percentage variation .	+3.4	+15.7	+8.6	—12.2	+4.7	+4.6	

Immigration in 1951 includes a Displaced population of 9,294. While Burdwan attracts more immigrants than the emigrants it sends out and Birbhum has no very strong tendency in this or in the reverse direction, Bankura sends a larger proportion of its children elsewhere to earn their living. While immigration has latterly increased emigration remains at a comparatively high figure proving that although the density per square mile is low the land cannot bear the pressure of even such a low density. It does not produce enough to feed it and therefore systematically squeezes a proportion of the population out of the district. Before there is anything like what in a normal district would be called agricultural overcrowding, a section of the population is driven away. In other words, the level of agricultural overcrowding in the district is very low. Statement I.51 shows marriage and other short-term migration between Bankura and other districts of Bengal in 1891-1921 and West Bengal in 1951.

STATEMENT I.51

Migration between Bankura and other districts of Bengal in 1891-1921 and West Bengal in 1951

	Immigration				Emigration			
	From contiguous districts		From other districts		To contiguous districts		To other districts	
	M	F	M	F	M	F	M	F
1891 . . .	14,612	24,118	545	500	32,940	35,135	9,973	5,912
1901 . . .	9,241	16,564	1,582	995	54,198	53,028	10,691	6,489
1911 . . .	7,000	24,000	600	600	50,000	54,000	9,000	6,000
1921 . .	5,000	10,000	1,000	1,000	50,000	57,000	9,000	5,000
1951 . .	18,218	23,474	3,555	4,823	33,500	40,162	11,884	8,701

167. Bankura people have moved to Burdwan, Midnapur and Hooghly in large numbers and also to Calcutta. The balance of migration between Bankura and Midnapur is in favour of the former. Migration between contiguous districts is mainly in marriages and short moves which happen only to cross the border: Bankura imports more brides than it seems to export. There is a numerous Bankura population in Calcutta (total 10,378, males 6,711, females 3,667). Those who got out from Bankura to other districts to earn their livelihood prefer to stick to agriculture. A few used to go to the tea gardens of Assam and still do, but the bulk prefer to follow the same pursuits as at home in the rural parts of Burdwan, Midnapur and Hooghly.

Midnapur

168. Statement I.52 shows the growth of population in the several subdivisions of Midnapur with that of their police stations. It illustrates how different patterns have prevailed in different subdivisions and at once indicates the Contai and Tamluk subdivisions as the most congenial to growth of population.

169. There is one special problem in Midnapur that has not been fully discussed before and that is its embankments in the south and south-east.

170. The policy which gave birth to them in the eighteenth and nineteenth centuries indeed seemed at a first glance a natural and obvious one. Here were hundreds of square miles of rich alluvial soil bearing splendid crops and capable of supporting a large population, and yet the people lived a precarious existence, liable any year to have their crops destroyed, their houses swept away and themselves exposed to peril and death by floods. Surely, then, the thing to do was to build an embankment to keep out the flood. Or as the problem was envisaged in Hijili, hundreds of square miles might be made available for human occupation if only the salt water could be refused ingress, and here again embankments seemed the panacea. No shadow of apprehension, however, as to the success of this policy seems to have crossed the minds of Authority for the best part of a century, and only when the consequences obtruded themselves in a form that could not be neglected were other factors for the first time taken into consideration. The first reference to the existence of a drainage problem, the result of the embankments, is in a letter from the Collector in 1873 on the subject of the outbreak of Burdwan Fever which had caused so great a loss of life in the two preceding years. It is very significant that this pestilence inflicted its worst on the water-logged, damp and embanked areas and stopped short as soon as it got out into the open, unembanked, well drained and irrigated dry portion. He reported that " the government embankments no doubt control the floods, and their utility has never been questioned, but there can be very little doubt that they also obstruct the drainage of the country and that to a very serious extent. The sluicing arrangements are lamentably deficient and only allow surface water to flow off. They are much too few in number, and are moreover faulty in construction, their floors are in many instances above the level of the country, so their utility for drainage purposes may well be questioned. The river beds having been raised by constant deposits of silt, to abandon these embankments now would no doubt involve enormous tracts in total ruin, but it was this system of embanking which has deprived the country of its natural increment of deposit, and kept it permanently depressed, *while its drainage channels have gradually become irrigation channels*, its waterways choked up, and the whole area water-logged" (the italics are mine—A.M.). These embankments were responsible for the waterlogging of Vishnupur subdivision in Bankura too. The presence of all this stagnant water which it is impossible to flush out affords an ideal breeding place for the malarial mosquito and the effect on the health of the community is most prejudicial. It

is precisely conditions such as these brought about by the embanking of the rivers in Midnapur that inevitably lead to the spread of malaria. Midnapur was once famed as a sanatorium and malaria was practically unknown in it, now it is one of the most fever stricken districts in the State, and it is precisely in those parts of it where embankments are most complete that the fever is worst, namely, in Chandrakona, Ghatal and Daspur; in Panskura, Sabang, Pataspur, and Bhagwanpur police stations. The area affected is slowly but steadily extending. Even Contai has become distinctly more malarious. Ghatal in particular is in a most melancholy condition and its decay has been described in the section on density. A. K. Jameson in his settlement report of the district in 1918 put it very picturesquely: "Now it is almost moribund, population has steadily declined, considerable areas formerly cultivated are now covered with dense thorn jungle; the villages are full of the ruins of big pucca houses testifying to their former prosperity now abandoned and rapidly disappearing, the silk and cloth industries are almost dead and the bell-metal manufactures are on a smaller scale than formerly, and one cannot help noticing when touring in that neighbourhood the listless and apathetic appearance of most of the inhabitants, *even the children make less noise than normal ones should,* so deeply has the virus soaked into them" (the italics are mine—A. M.). The decay and melancholy that the present writer has seen during his tours in 1950-51 in that area enables him deeply to appreciate the sentiments of the above extract. The effect of a tour is indeed quite overpowering.

171. With respect to the effect of embankments on the deterioration of cultivation, while it cannot be asserted that any part of Midnapur is past praying for, there can be no doubt that the large tracts in Ghatal, Daspur, Bhagwanpur, and Pataspur police stations were steadily getting worse until the problem was tackled with some vigour and imagination between the time the first Drainage Committee sat in 1889, and 1930. A great deal of the damage already inflicted still continues to have its effect but the evil has at least been appreciated in its right perspective and its tide stemmed.

172. This is the problem of the south-east and south of the district while deforestation is the problem of the north-west and west. Deforestation in Midnapur has been discussed in the section on forests in the Introduction and between the two of them,—embankments and deforestation,—much damage has been done to the productivity of the soil and necessarily to the population. The account of the decades which follows should be read against this context.

173. Between 1870 and 1881 the whole of the north-eastern portion of the district suffered severely from Burdwan Fever. Between 1881 and 1901 the health of the district improved and the population on the whole made satisfactory progress. Although much ordinary fever existed in the badly drained and flooded tracts, in other respects the health of the people showed a marked improvement, and during 1891-1901 the district was peculiarly free from cholera and small-pox epidemics. The inauguration of the Bengal Nagpur railway from Howrah to Khargpur, from Khargpur to Balasore, from Khargpur to Sini in 1898-1903, extinguished the major source of cholera which used to be introduced by pilgrims to and from Puri along the pilgrim roads. The railway benefited the district in many other respects. By facilitating the disposal of the produce, prices rose, and the cultivators, who enjoyed a better fixity of tenure than in Bankura. were comparatively well off. During 1901-11 there were only three healthy years 1903, 1904 and 1908-10. Epidemics were persistent and widespread; cholera raged in 1901, 1902, 1906, and 1907, and there was a virulent epidemic of

small-pox in 1902. Fever, the most important element in the life of the district was rife in the waterlogged areas, and the outturn of the crops was poor for several years. The volume both of emigration and immigration increased owing to the extension of the railway. The increase of population was small along the sea-coast and the estuary of the river Hooghly. During 1911-21 the influenza epidemic caused great mortality and malaria took its usual toll. It is sad to reflect that the district as a whole and every police station except Khedgree, Ramnagar, Mahisadal, Nandigram, Sutahata on the sea-coast, and Jhargram and Jambani on the Bihar border suffered from a decrease in population. The outstanding event of 1921-31 was the expansion of the Khargpur railway settlement and an increase in the number of employees in the railway workshops, and an influx of unemployed relatives of employees from other parts of India. The next decade 1931-41 was comparatively uneventful except for the civil disobedience movement in 1931-33, drought in 1933-34 and scarcity in 1939-40. The events of 1941-51 have been described in detail in the Introduction and the district suffered heavily between 1942 and 1945, causing depopulation in a number of police stations: Dantan and Mohanpur in Sadar subdivision; Contai, Pataspur, Ramnagar and Egra in Contai; and Nandigram in Tamluk subdivision. This indicates that the coastal areas have not yet been able to recover from the combined effects of the Cyclone of October 1942 and the famine and epidemics of 1943-44.

174. The district presents a less dismal aspect than the three other districts considered so far inasmuch as between 1872-1921 it showed a small increase of 4·8 per cent. on the 1872 population; an increase of 26 per cent. on the 1921 population in 30 years, 1921-51; and an increase of 20·4 per cent. in 50 years, 1901-51. Areas congenial to steady and continuous growth have been the Contai and Tamluk subdivisions which are well-drained and irrigated and contain soil of great fertility and Jhargram subdivision which is rocky, on a high level, well sloped and drained. The areas of decay and bad growth have been the heavily embanked, waterlogged, and ill-drained central portion of the district and Ghatal subdivision. Although they contain some excellent fertile soil disease and malaria take heavy tolls. The areas susceptible to decrease of population consist of police stations in two blocks, *viz.*, (1) an upland block to the north consisting of the Garhbeta, Salbani and Keshpur police stations, all lying to the north of the Kasai; and (2) an alluvial block to the south-east consisting of Midnapur, which lies mainly to the south of the Kasai, and Debra, Sabang and Pingla, which are entirely to the south of that river. In the former of these areas cholera and fever have been prevalent and the harvests poor: the latter block is a low-lying depression mostly under canal irrigation where the country is fertile, but swampy and malarious.

STATEMENT I.53

Percentage of age groups and of married women (15-40) to total population and of children (0-5) to married women (15-40) in Midnapur, 1901-51

Year	Percentage of persons, males and females to total population						Percenta of marrie women (15—40) to total populatic	[illegible]tage children (0—5) to total married women (15—40)
	Age group 0—15			Age group 15—60				
	P	M	F	P	M	F		
1	2	3	4	5	6	7	8	9
1901	37·6	39·1	36·0	57·4	56·7	58·3	16·5	73·3
1911	37·0	38·5	35·5	58·0	57·1	58·8	16·5	73·2
1921	36·4	37·8	35·1	59·0	58·4	59·5	16·0	65·0
1931	36·7	37·8	35·6	59·8	59·0	60·5	17·4	77·1
1941	36·4	36·8	35·9	59·4	59·3	59·4	17·0	72·7
1951	36·3	34·1	38·5	58·8	60·9	56·7	16·9	77·7

This is a slight improvement on Bankura and Birbhum and seems to conform to the general pattern of the remaining agricultural districts. The adult population is smaller in proportion than in Burdwan but larger than in Birbhum and Bankura. The size of the family shows a slight upward trend in recent decades. The influenza epidemic appears to have affected the adult population more than the young population. The cyclone, famine and epidemics of 1942-44 affected young boys much more than girls, whereas in Birbhum and Bankura the famine and epidemics marked down more young girls than boys. But curiously enough this is reversed in the case of adult women. In Midnapur more women succumbed to the famine and epidemics than men, whereas in Bankura it was definitely more men than women that succumbed.

175. Midnapur keeps up a heavy two-way traffic in immigration and emigration and Statement I.54 shows the district's share in migration with other states of India and outside.

STATEMENT I.54

Immigration and emigration in Midnapur from and outside the State, 1891-1951

	1951	1941	1931	1921	1911	1901	1891
Actual Population . . .	3,359,022	3,190,647	2,799,093	2,666,660	2,821,201	2,789,114	2,631,466
Immigration	123,919	76,850	64,285	47,027	48,572	26,264	9,706
Emigration	61,816	36,908	30,952	36,000	45,000	17,494	24,821
Natural population . . .	3,296,919	3,150,705	2,765,760	2,655,633	2,817,629	2,780,344	2,646,581
Percentage variation . . .	+4.6	+13.9	+4.1	—5.7	+1.3	+5.1	..

176. The district has been having increasingly large doses of immigration from outside the State. The increase between 1921 and 1931 was due to the expansion of the Khargpur railway settlement but in latter years this factor is less in magnitude than immigration of tribes from Singhbhum and Mayurbhanj. The emigrant population is large but steady. The 1951 figure includes 33,579 Displaced persons even without which immigration since 1921 has made almost an arithmetical progression. Emigration between 1881 and 1911 was heavy in spite of a decrease of population, which points towards the suspicion that the capacity of the soil at least in parts of the district was deteriorating. But the reclamation of the fertile soil against the Hooghly and the Rupnarayan and along the sea face, where the *Jalpai* lands, formerly reserved for the manufacture of salt, were brought under cultivation after the middle of the last century when the manufacture of salt by the evaporation of sea-water was finally given up, once more made available much fertile land on which a large population could subsist. According to West Bengal Government no Muslim is reported to have migrated from the district to East Bengal.

STATEMENT I.55

Migration between Midnapur and other districts of Bengal in 1891-1921 and West Bengal in 1951

Year	Immigration				Emigration			
	From contiguous districts		From other districts		To contiguous districts		To other districts	
	M	F	M	F	M	F	M	F
1891 . . .	12,528	18,799	889	435	24,042	33,045	18,067	12,877
1901 . . .	14,391	17,165	6,626	1,615	44,571	40,777	19,115	12,288
1911 . . .	10,000	13,000	2,000	2,000	49,000	40,000	23,000	14,000
1921 . . .	8,000	11,000	2,000	2,000	60,000	47,000	21,000	13,000
1951 . . .	14,391	23,998	7,336	67,219	70,815	65,627	42,566	23,240

177. There is a great deal of marriage migration between Midnapur and other districts, Midnapur importing a larger number of brides than it exports. The district also exports large numbers of sturdy enterprising Mahisya agriculturists who migrate with their entire families and colonise, suffering sometimes extreme hardship as only Muslim colonisers in Barisal and Khulna can bear, in Burdwan, Birbhum, Hooghly, Howrah, and chiefly 24-Parganas. If the Santal is the natural enemy of the jungle in dry, rocky, infertile upland, the Mahisya is the natural enemy of swampy, waterlogged damp, saline vegetation in low riverain or coastal regions. The native of Midnapur is also deft with his hands and feet, owing to generations of skill in agriculture and valuable cottage craft and artisanship, and is highly welcome in the mills and factories of Hooghly, Howrah, Calcutta and 24-Parganas. There is thus a great deal of emigration out of Midnapur both into the fields of agriculture and industry outside the district. Among all purely agricultural and rural districts Midnapur is the most enterprising and has the largest contacts with the outside world at home and abroad.

Hooghly

178. The growth and movement of population of Hooghly district has been discussed at length in the section on density. It remains to describe the background of depopulation in the rural areas of the district between 1860 and 1882 and the causes of the decline. Statement I.56 gives an account of the progress of population in each police station from decade to decade. The district presents almost an identical pattern of progress with Burdwan. Only the decrease during the 50 years of 1872-1921 was double in proportionate percentage. The proportionate growth during 1921-51 has been slightly less than in Burdwan, and the proportional growth during 1901-51 slightly more than in the latter district. Two conclusions are therefore valid: (*a*) that the Burdwan Fever routed the district more fiercely than it did Burdwan; and (*b*) the industrialisation of Hooghly took place earlier and proceeded gradually over a much longer period than industrialisation in the Asansol subdivision of Burdwan. The Calcutta-Ranaghat railway line was opened in 1862 and the Howrah-Raniganj main line had opened in 1854-55. There is little to dispute that the spread of Burdwan Fever was facilitated by the water-logging of vast tracts of fertile land consequent on the construction of the permanent ways of railways and the heightening of the embankments of the Damodar river. At the end of the 50-year period 1872-1921 only six police stations showed large increases: Polba, Serampur, Uttarpara, Bhadreswar, Singur and Chanditala. Among them Serampur, Uttarpara and Bhadreswar increased because of the establishment of industry and immigration of upcountry labour. But Dhaniakhali in Sadar subdivision, and Tarakeswar, Haripal, Singur, Chanditala and Jangipara in Serampur effected a most remarkable recovery in 1891 after having been heavily decimated in 1872-81. It was a singular phenomenon for which no explanation readily offers itself unless one is acquainted with the events of 1872-81. These police stations were in the very pit of the area afflicted in 1861-63. The pestilence continued even up to 1874, and increases in 1891 would be most unlikely. But a singular thing happened which turned the tide of events. In 1873-74 and 1875, and again in 1879 the Eden Canal was excavated thus resuscitating the Kana Nadi, and " the admission of the Damudar Water", wrote Coats then Sanitary Commissioner of Bengal, " into the Kana Nadi in 1873-74 and 1875 was followed by an immediate and marked amelioration in health ". Dutt, the Assistant Surgeon of Serampur in 1879 stated that " the letting of the Damudar Water was a most welcome relief and but for it parts of the country would have been entirely depopulated. It has been allowed to flow in 1878 and 1879, and the people

say that the epidemic has disappeared since the last two years. These facts leave no doubt that the letting in of the Damodar Water in the Kana Nadi and through it into the *Khals,* drains and tanks, etc., in the interior of the Sub-Division has led to this improvement". This improvement was maintained by further development. Polba and Dhaniakhali were early opened up to railway traffic by the Tarakeswar-Rudrani-Magra-Tribeni light railway in 1894-1902. Earlier the Sheoraphuli-Tarakeswar railway line in 1885 had immensely benefited Singur, Haripal and Tarkeswar. Chanditala and Jangipara were benefited early by the opening of the Howrah-Sehakhala and Chanditala-Janai suburban railways in 1897-98 which helped them to get the better of the loss they had sustained in 1872-81. Earlier the Dankuni drainage scheme had been completed in 1873. It consisted of drainage channels, 16½ miles long, excavated through the lowest ground in the middle of the *jhils* and leading to the Baidyabati Khal on the north and the Bally Khal on the south; these two Khals were also partially widened, straightened, and deepened; two self-acting sluices, one in each Khal, with three openings and double gates, and an iron-girded two spanned bridge over the Serampur-Chanditala Crossing were designed to flush the land. The Rajapur drainage scheme completed after 1880 drained the southern portion of Jangipara police station; besides a small drainage channel west of Rampur was also constructed in 1907-8. It was further benefited by the drainage of the Kausiki in 1910-11.

179. Hooghly is the product of dead and dying rivers and the growth of its population outside the industrial area therefore directly depends on the state of these rivers and the drainage they succeed in accomplishing. In his census report of 1901 E. A. Gait doubted whether the district would ever fully recover its losses until the drainage problem was solved. That consummation is still remote even in 1951. The slightest obstruction in drainage and the slightest increase in water-logging in the great saucer-shaped depressions originally caused by the recession of river beds and the silting up of canals engineered long ago by human agency are enough to touch off a string of devastating fever epidemics. The district is a little above sea-level, it has a heavy rainfall, it is traversed by numerous 'dead' or silting up rivers and it is chiefly devoted to the growth of rice, a crop which requires the ground to be a swamp during several months of the year for its cultivation. These conditions necessarily lead to its being water-logged in the rains. Efficient drainage is difficult, as there is not sufficient fall.

180. During 1891-1901 although health was bad, crops were good and prices ruled high. The cultivators were so prosperous that there was no serious distress even in 1897 when the rice crop was little more than one-third of a normal one. There was a large and growing demand for labour in the mills and brickfields which were manned by imported labour from Bihar, Orissa and Bankura. The uneducated classes were well off and cultivators found ready markets for their jute, potatoes and other crops. During 1901-1911 the district gained more by the influx of immigrants than by natural growth. The birth-rate exceeded the death-rate only in 1904, 1909 and 1910. Fever was rife during the decade. During 1911-21 malarial fever removed large populations in 1912 and 1913, and the influenza epidemic wrought a similar havoc in 1917-19. Every police station except Chinsurah, Polba and Magra, and the industrial areas of Serampur, Bhadreswar and Uttarpara lost heavily during the decade. But the Howrah-Burdwan Chord line in 1917 opened up the central, malarious police stations of Chanditala, Singur, Tarakeswar and Dhaniakhali, and earlier, the Bandel-Nabadwip line in 1912 opened up another malarious area, Balagarh. During 1921-31 improved public health measures in Pandua, Balagarh, Chinsurah and Magra resulted in

an increase in population. In Magra and Pandua an increase in the number of rice mills led to immigration of Santals, Bauris, and other aboriginals who also brought waste land under cultivation. Uttarpara saw a large increase in the number of its brickfields and rose in favour as a residential suburb of Calcutta owing to the construction of the Willingdon Bridge across the Hooghly and the Howrah-Burdwan Chord line. Pursura and Khanakul, being in the spill area of the Damodar river, were comparatively free from epidemic or endemic diseases, and in some places the fertility of the soil increased. During 1931-41 there was no event of outstanding importance likely to affect the growth of population. The outbreak of World War II in 1939 made the mill wheels hum again full steam. During 1941-51 the district was not in the direct famine zone but suffered from epidemics in 1944.

STATEMENT I.57

Percentage of age groups and of married women (15-40) to total population and of children (0-5) to married women (15-40) in Hooghly, 1901-51

Year	Percentage of persons, males and females to total population						Percentage of married women (15—40) to total population	Percentage of children (0—5) to total married women (15—40)
	Age group 0—15			Age group 15—60				
	P	M	F	P	M	F		
1	2	3	4	5	6	7	8	9
1901 . . .	33·8	34·7	32·8	60·7	60·6	60·8	15·4	71·0
1911 . . .	34·2	34·7	33·5	60·2	60·4	60·3	15·7	75·6
1921 . . .	34·0	34·4	33·7	61·2	61·4	60·8	15·9	63·7
1931 . . .	33·5	32·7	34·2	62·9	64·2	61·6	16·4	75·4
1941 . . .	34·8	33·3	36·5	61·3	63·3	59·1	16·2	73·7
1951 . . .	37·9	36·3	39·8	57·3	58·8	55·6	15·3	95·1

181. The statement reflects the effect of a large adult industrial population on the age structure between 1901 and 1941. It also shows how a slight preponderance of females in the younger ages is lost in the adult ages, proving that specific mortality among women is higher than among girls. Column 9 betrays the appalling effect of malarial fever and influenza epidemics on younger ages, and the figures for 1951 plainly bear a great stamp of the epidemics of 1944. Column 9 for 1941 suggests bogus inflations among married women in the 1941 count.

STATEMENT I.58

Immigration and emigration in Hooghly from and outside the State, 1891-1951

	1951	1941	1931	1921	1911	1901	1891
Actual population	1,554,320	1,377,729	1,114,255	1,080,142	1,090,097	1,049,041	1,034,296
Immigration	181,908	134,100	110,470	90,160	68,877	43,847	16,092
Emigration	21,045	12,565	10,537	7,000	14,002	1,687	19,293
Natural population	1,393,457	1,256,194	1,014,322	996,982	1,035,222	1,006,881	1,037,497
Percentage variaton .	+10·9	+23·8	+1·7	—3·7	+2·8	—3·0	..

182. The figure of immigrants for 1951 contains 51,153 Displaced persons, otherwise the rest of the migration almost entirely represents the coming and going of industrial labour. This shows how tardily immigration of up-country industrial labour has taken place between 1921 and 1951. The figure of emigrants in 1951 does not include 5,300 Muslims who, according to the West Bengal Government, are said to have migrated to East Bengal.

STATEMENT I.59

Migration between Hooghly and other districts of Bengal in 1891-1921 and West Bengal in 1951

Year	Immigration				Emigration			
	From contiguous districts		From other districts		To contiguous districts		To other districts	
	M	F	M	F	M	F	M	F
1891 . . .	35,121	44,016	2,704	2,061	71,083	59,125	3,387	2,488
1901 . . .	44,772	47,209	26,716	6,741	64,027	47,691	5,329	4,107
1911 . . .	50,000	59,000	4,000	4,000	43,000	41,000	35,000	16,000
1921 . . .	51,000	64,000	6,000	4,000	23,000	25,000	24,000	11,000
1951 . . .	38,335	64,492	8,646	14,412	29,715	54,220	26,316	13,260

183. This statement shows that Hooghly contracts marriages mainly with Burdwan, Bankura, Midnapur, Howrah, 24-Parganas and Nadia, and brings in more brides than it gives away in marriage. Emigrations to contiguous districts are mostly temporary, short term or periodic of agriculturist and rural families. Immigration and emigration to other districts are mostly occasioned by business and services in which in a large number of cases whole families move in or away.

Howrah

184. Statement I.60 illustrates the growth of population in the subdivisions and police stations of Howrah district. This is the only district in the Burdwan Division where every police station has recorded increases uniformly from decade to decade after 1881, barring Sankrail, Panchla and Bauria in 1921-31, and Sibpur, Domjur, Jagatballavpur and Bauria in 1941-51. Even in 1872-81 the Burdwan Fever affected only three police stations, Panchla, Jagatballavpur and Amta. The first, two suffered a decrease of 3·4 per cent. each, while Amta suffered a decrease of only 0·5 per cent. The decrease in 1941-51 in Sibpur, Domjur, Jagatballavpur and Baruia was due to a threefold reason. Each of these police stations contain mixed populations of Hindus and Muslims who vied with one another to inflate the census returns in 1941 with bogus entries. Thus the record of increase for these police stations was so high in 1941 that, except for Sibpur and Bauria which were industrial areas and might be given the benefit of the doubt, it is scarcely credible. Against the high increases of 1941 the increases of 1951 everywhere look very small indeed, much smaller than they need have been in truth. But there was another reason which showed a decrease for these police stations in 1951 which was the communal riots of March-April 1950. As a result of these riots, Bengali Muslim families from Sibpur, Domjur and Jagatballavpur moved into areas where they felt less isolated and more secure among other fellow-Muslims, while a fair number of Bihari and Uttar Pradesh Muslim industrial workers returned to their homes. According to the West Bengal Government no Muslim is reported to have migrated to East Bengal for good. The third reason is that Domjur and Jagatballavpur were the only two police stations which surrendered victims to the famine and epidemics of 1943-44.

185. The district early received the attention of the government in the matter of drainage. Two schemes for the drainage and consequent reclamation of swampy areas,—the Howrah and Rajapur schemes,—which now drain an area of 50 and 270 square miles respectively, have benefited the district. The former was completed in 1885 and the latter in 1894-95. Another, the Dankuni drainage works completed earlier in 1873, benefited the Chanditala police station of Hooghly district but also

the north of Domjur police station. These schemes have proved very successful in reclaiming useless swamps and improving other lands. In years of heavy rainfall the surplus is drained away by means of channels and sluices; in years of drought water from the Hooghly is let in for the purposes of irrigation. The people are thus assured of good harvests both in years of drought and in years of heavy rainfall. Two police stations have been especially benefited by these schemes, *viz.*, Domjur and Jagatballavpur. The rest of the district lower south is flushed by estuarine tides, and the mouths of big rivers. Drainage schemes have been carried out in Amta which is now healthier than before. The south of the Uluberia subdivision is not so waterlogged and is generally healthier. The district was opened up very early by the East Indian Railway in 1854-55, the Howrah-Amta, the Howrah-Champadanga and Howrah-Sehakhala light suburban railways in 1897-98 and the Bengal Nagpur Railway in 1898-1900. The district is full of artisans, craftsmen and white collar workers who work in Howrah and Calcutta. Howrah and Bally were industrialised later than the Hooghly strip in Hooghly district but already in 1901 there were large railway workshops, many mills and factories. Between 1931 and 1941 Howrah City has seen rapid growth in engineering workshops and foundries in Bally, Lillooah, Bantra, Golabari, Mallipanchghara and Belur.

186. During 1891-1901 except in 1897 and 1898, fever was prevalent. Before 1896 cholera broke out annually but the construction of the water works that year, in addition to improving the general health of Howrah City, resulted in a far smaller mortality from epidemic diseases. The crops were bad three years owing to deficient rainfall, and in two years they suffered from floods, but the people were so well off that relief works were never necessary. During 1901-11 agricultural conditions were on the whole favourable. The special industrial census carried out in this decade showed that no other district in the Burdwan Division was so little dependent on the outturn of its crops. One-seventh of the total male population was at work in manufacturing or industrial concerns employing 20 persons or more. It was during this decade that the tramway from Calcutta was extended into Howrah. During 1911-21 the influenza epidemic did not affect the district to the point of forcing a decrease in population, but in 1921-31 three police stations suffered decrease, as already noted, ascribed to the closing down of mills and factories and the retrenchment of staff. During 1931-41 there was no event of special note but 1941-51 was marked by the famine and epidemics of 1943-44 and the communal riots of 1950.

STATEMENT I.61

Percentage of age groups and of married women (15-40) to total population and of children (0-5) to married women (15-40) in Howrah, 1901-51

Year	Percentage of persons, males and females to total population						Percentage of married women (15—40) to total population	Percentage of children (0—5) to total married women (15—40)
	Age group 0—15			Age group 15—60				
	P	M	F	P	M	F		
1	2	3	4	5	6	7	8	9
1901 . . .	36·9	36·8	36·9	57·7	58·8	56·8	15·4	80·3
1911 . . .	35·4	35·2	35·8	59·3	60·2	58·0	15·7	78·5
1921 . . .	35·2	34·6	35·9	60·0	61·3	58·5	15·9	69·8
1931 . . .	35·2	33·6	37·0	61·0	63·0	58·7	16·1	80·2
1941 . . .	35·3	33·4	38·0	60·7	63·0	57·4	15·6	80·8
1951 . . .	36·6	34·2	39·6	59·9	62·6	56·4	15·0	87·9

187. For an industrial district, Howrah rightly shows a smaller proportion of the young population than agricultural districts. But in the adult population males far outnumber females every year suggesting that immigrants must be mostly males and that specific mortality among women is higher than among men, and still higher than among girls. Column 9 for 1921 and 1931 shows the continued effect of the influenza epidemic. There were small bogus inflations among married women in 1941, and in 1951 the famine and epidemics carried off a considerable adult population, especially women.

STATEMENT I.62

Immigration and emigration in Howrah from and outside the State, 1891-1951

	1951	1941	1931	1921	1911	1901	1891
Actual population . . .	1,611,373	1,490,304	1,098,867	997,403	943,502	850,514	
Immigration	201,926	206,350	137,514	129,186	109,304	87,168	46,284
Emigration	6,147	3,670	3,078	3,000	8,005	325	933
Natural Population . . .	1,415,594	1,287,624	964,431	871,217	842,203	763,671	718,274
Percentage variation . . .	+9·9	+33·5	+10·7	+3·4	+10·3	+6·3	..

188. The figure for 1951 includes 61,096 Displaced persons from East Bengal. It shows the steady increase of immigrants from 1891 onwards up to 1941. The extent of inflation if any in 1941 will be estimated later. But 1951, not counting the Displaced population, shows a marked diminution in the number of immigrants. It is possible that Bihari and up-country immigration did not recover its full volume after the riots of 1950, and it is also possible that whatever up-country Muslim population that went away from industrial and agricultural areas were replaced by a Bengal born population, thus reducing the demand for immigrant labour. It is therefore too early to suggest that industries in Howrah have reached a saturation point and begun to resist immigrant labour from outside the State. The figure of emigrants of 1951 does not include those Muslims who may have gone away to East Bengal.

STATEMENT I.63

Migration between Howrah and other districts of Bengal in 1891-1921 and West Bengal in 1951

Year	Immigration				Emigration			
	From contiguous districts		From other districts		To contiguous districts		To other districts	
	M	F	M	F	M	F	M	F
1891 . . .	26,661	28,640	5,600	3,008	10,751	6,180	872	631
1901 . . .	25,719	23,742	41,022	10,350	13,687	7,430	1,015	939
1911 . . .	39,000	31,000	7,000	3,000	17,000	13,000	1,000	1,000
1921 . . .	22,000	21,000	6,000	3,000	31,000	20,000	1,000	1,000
1951 . . .	35,375	56,945	20,147	10,160	86,668	53,867	7,594	5,488

189. Large numbers of agriculturists and aboriginals immigrate to seek employment in cultivation, in the brickfields or on railway works. There must be many agriculturist families from Midnapur, Hooghly and Bankura also. Howrah sends out for temporary periods large numbers of male emigrants to 24-Parganas and Calcutta. Emigration from Howrah as elsewhere, however, does not necessarily prove that Howrah people are emigrating in a real sense. It is probable that the bulk of those born in Howrah but found elsewhere only happened to be born while their parents were temporarily sojourning in Howrah, and afterwards went back with them to their native country. This lacuna is inevitable in a mode of accounting in which birthplace is made the sole criterion of migration.

190. While Burdwan Division is a compact area west of the Bhagirathi

formerly known as Western Bengal, the Presidency Division is a straggling one which extends from the Bay of Bengal in the south to the Himalayas and Sikkim in the north, intercepted between West Dinajpur and Jalpaiguri by East Bengal and Bihar.

24-Parganas

191. The population of 24-Parganas excluding the enclave of Calcutta has been discussed in the section on density and general growth, and all that is necessary here is to describe the factors which contributed to its growth in different parts. The district can be divided into three easily recognisable zones (*a*) the industrial and suburban zone comprising the Barrackpur and Sadar subdivision; (*b*) the north-eastern zone consisting of Barasat and Bangaon subdivisions; and (*c*) the south and south-eastern zone of Diamond Harbour and Basirhat subdivisions which include a part of the Sundarbans.

192. The district is well served by arterial roads and railways. There is the Barrackpur Trunk Road from Calcutta which is an arterial road running parallel to the Hooghly up to Kanchrapara. The Diamond Harbour Road starts from Alipur and goes south beyond Diamond Harbour. The Budge Budge road goes to the south-west. The Ballyganj-Baruipur road goes south. The Jessore Road goes to Bangaon and beyond *via* Barasat. The Barasat-Basirhat road goes from Barasat to Basirhat. The Barasat-Ranaghat road is a parallel road to the Barrackpur Trunk Road.

193. The Calcutta Sonarpur-Magrahat-Diamond Harbour railway (37 miles) was opened in 1862-83; the Sonarpur-Canning-Bansra branch (18 miles) in 1862-63; the Ballyganj-Budge-Budge line (13½ miles) in 1890; the Baruipur-Lakshikantapur line (23¼ miles) in 1928; the Barasat-Basirhat Light Railway (2′ 6″ gauge, 52½ miles) in 1913-14; the Dum Dum-Dattapukur-Gobardanga railway (12 miles) in 1884; the Ranaghat-Bangaon railway (12 miles) in 1884; the Ranaghat-Bangaon (21 miles) railway in 1882; and the Calcutta-Ranaghat railway in 1862.

194. In this district the Public Works Department maintains an extensive system of embankments from Akra in thana Metiabruz to Samukpota traversing the fringes of the Sundarban lots leased out to private individuals. The length of the embankment has been estimated to be about 212 miles which is divided into several sections. The embankment was constructed towards the beginning of the 19th century, to protect the adjoining low rice growing villages from the ravages of the tidal and saline rivers. The embankments were necessary at a time when the Government wanted to improve the climate of Calcutta, to free the areas within the vicinity of the city from the ravages of smugglers and pirates and from the depredations of ferocious animals, and with that primary object in view, efforts were made to reclaim a vast tract known as Sundarbans and low stretches of paddy-growing areas in Diamond Harbour subdivision. The beds of the surrounding rivers were then higher than the levels of the land surface, and it was found necessary to embank these lands for the purpose of reclamation.

195. The ultimate result of their embanking has been to contract the spill area of the rivers with the result that the silt is deposited in the river bed during the slack periods of the tide and the rivers themselves are gradually dying in consequence. It seems that periodic enlargement of the spill areas by allowing the silt laden water to flow over the beds will, in time, become necessary in the interest of health and navigation as well as drainage.

196. Another feature in the reclamation and cultivation of the Sundarban lands is the embankment of the water inlets. It is characteristic of deltaic

formation that the banks of the rivers are higher than the lands further removed from them, and the whole of the Sundarbans may be regarded as an aggregation of basins where the higher level of the sides prevents the water from coming in and flooding and spilling over the interior. Many of these basins are so formed that left to themselves they would remain under flood, as they communicate with the surrounding channels by means of *Khals*, or small water courses, which penetrate the bank; and a great part of reclamation work consists in keeping out the water and thus bringing under cultivation the marsh land.

197. It is necessary to obtain a brief idea of the system of land tenure in the south to appreciate the growth of population in these regions up to 1930. Recently a committee on the Development of the Sundarbans was appointed which made its recommendations in 1950. The colonisation of the Sundarbans is too interesting an account to be briefly recounted here. The very brief account that is given below is intended merely to help the reader appreciate the special circumstances in which cultivation proceeds in the south of the district.

198. Cultivation is spreading very rapidly in the Sundarbans and all over the district the swamps are being gradually drained and reclaimed. A tract on the southern face of the Sundarbans forms a protected forest; but cultivation is rapidly encroaching upon it and no less than 466 square miles were disforested during the decade ending 1903-4, leaving 1,758 square miles which shrank to 1,630 square miles as the present area. The reclaimed tract to the north is entirely devoted to rice cultivation, and winter rice of a fine quality is grown there. When land is cleared, a *bund* or dyke is erected round it to keep out the salt water, and after two years the land becomes fit for cultivation; in normal years excellent crops are obtained, the outturn being usually about 20 maunds of unhusked paddy per acre.

199. Settlements of waste lands have until recently been formed under the Rules promulgated in 1879, the grants being made of two clases; *viz.*, blocks of 200 acres or more leased for 40 years to large capitalists who are prepared to spend time and money in developing them; and plots not exceeding 200 acres leased to small capitalists for clearance by cultivators. Under this Rule 1/4th of the entire area leased was for ever exempted from assessment, while the remaining 3/4ths were held free of assessment for ten years. On expiry of the term of the original lease, the land was open to resettlement for a period of 30 years. It was stipulated that 1/8th of the entire grant must be rendered fit for cultivation at the end of the fifth year, and this condition was enforced either by forfeiture of the grant or by the issue of a fresh lease at exorbitant rates. Out of 2,301 square miles in 24-Parganas 1,223 square miles were by 1900 leased to capitalists. Experience has shown that this system has led to the growth of an undesirable class of speculators and middlemen, and to the grinding down of the actual cultivators by excessive rent. Land jobbers and speculators obtain leases for the purpose of reselling them; in order to recoup his initial outlay the original lessee often sublet his smaller leases in return for cash payments; and the same process was carried on lower down the chain, with the result that the land was eventually reclaimed and cultivated by peasant cultivators paying rackrents. This is an unfamiliar but inevitable consequence of 'nationalisation of land' when resettled with non-cultivating middle classes. It was accordingly decided in 1904 to abandon this system and to introduce a system of Raiyatwari Settlement as an experimental measure in the 24-Parganas Sundarbans. Under this system small areas would be let out to actual cultivators, assistance being

given them by the Government in the form of advances, as well as, by constructing tanks and embankments, and clearing the jungle for them.* But this experiment did not make much headway.

200. In 1901 the Magistrate of 24-Parganas divided his district into five groups: (1) the industrial thanas along the Hooghly which were healthy, enjoying a good supply of drinking water which, in some cases, was filtered by the managements of mills; (2) the subdivision of Barasat where drinking water was bad and polluted, drainage channels were blocked, and homesteads were surrounded by dense jungle and malaria was prevalent; (3) the northern half of the subdivision of Basirhat which was healthy; (4) the southern halves of Basirhat and Diamond Harbour subdivisions which were comparatively healthy and free from noxious undergrowth; and (5) the Sundarban thanas where reclamation and cultivation were spreading rapidly southwards.

201. During 1901-11 the most important event was the Magrahat drainage scheme, which was designed for the drainage of a marshy tract extending over 290 square miles, where, thanks to the embankments, the inhabitants had been "inured to a semi-amphibious life by a long course of preparation resulting in the survival of the fittest". The drainage scheme at once improved the productivity of the soil and the growth of population. The construction of a sluice in the neighbourhood of Diamond Harbour completed in 1909 had remarkable consequences: 100 square miles of swampy waste land was reclaimed and covered with rice cultivation. Nothing of note happened in 1911-21 except the influenza epidemic. The decades 1921-41 were uneventful but the cylone of 1942, the famine and epidemics of 1943-44, and the cyclone of 1950 took heavy tolls of human lives.

202. As statement I.64 shows, all subdivisions except Bangaon and Diamond Harbour grew fairly uniformly between 1872 and 1921. Bangaon registered a considerable decrease owing to malarial epidemics and Diamond Harbour recorded a large increase owing to immigration into and colonisation of the Sundarbans. Growth between 1921 and 1951 was also even for all subdivisions except Barrackpur where the population grew one and a half times of what it was in 1921. Growth between 1901 and 1951 has been phenomenal in Sadar and Barrackpur subdivisions, especially in the latter, but less spectacular in the other subdivisions. According to the West Bengal Government 51,950 Muslims migrated into Pakistan during 1947-51, of whom 23,850 later returned.

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* Imperial Gazetteer for Bengal, 1903-4.

STATEMENT I.65

Percentage of age groups and of married women (15-40) to total population and of children (0-5) to married women (15-40) in 24-Parganas, 1901-51

Year	Percentage of persons, males and females to total population						Percentage of married women (15—40) to total population	Percentage of children (0—5) to total married women (15—40)
	Ages 0—15			Ages 15—60				
	P	M	F	P	M	F		
1	2	3	4	5	6	7	8	9
1901	37.9	37.8	38.1	56.6	56.7	56.4	15.4	88.5
1911	37.5	36.5	38.5	57.6	58.9	56.2	16.0	81.1
1921	36.3	35.1	37.8	59.2	60.7	57.4	16.1	70.8
1931	37.3	36.0	38.7	59.1	60.6	57.5	16.7	84.6
1941	37.0	35.0	39.3	59.0	61.1	56.6	16.2	80.5
1951	38.9	37.5	40.8	57.0	58.7	54.9	15.7	96.1

203. The statistics are disappointing inasmuch as in spite of a large industrial population the proportion of the young population is large and of the adult population small. The preponderance of adult males can be related to immigration and industrial employment. The influenza epidemic took a heavy toll as reflected in column 9, and there were fictitious inflations among married women in 1941. The size of the family as shown in column 9 does not betray any definite trend beyond that it is high in 1951 which is explained by the very large influx of Displaced women and children into the district between 1947 and 1951.

STATEMENT I.66

Immigration and emigration in 24-Parganas from and outside the State, 1891-1951

	1951	1941	1931	1921	1911	1901	1891
Actual population . . .	4,609,309	3,669,490	2,888,694	2,636,710	2,478,335	2,155,981	1,988,699
Immigration	975,916	378,975	269,868	293,903	247,700	135,451	93,367
Emigration	14,136	8,440	7,078	6,200	12,200	2,849	6,950
Natural population . . .	3,647,529	3,298,955	2,625,904	2,349,007	2,242,835	2,023,379	1,902,282
Percentage variation . . .	+10.6	+25.6	+11.8	+4.7	+10.8	+6.4	..

204. The figure for immigrants in 1951 includes 527,262 Displaced persons which reduces immigration from other states of India and the world to 448,654. The remarks made on the subject of emigration in connexion with Howrah possibly applies to 24-Parganas as well. The statement shows the pretty uniform level of immigration between 1911 and 1931 but nothing outstanding between 1931 and 1951.

STATEMENT I.67

Migration between 24-Parganas and other districts of Bengal in 1891-1921 and West Bengal in 1951

Year	Immigration				Emigration			
	From contiguous districts		From other districts		To contiguous districts		To other districts	
	M	F	M	F	M	F	M	F
1891 . . .	26,029	17,027	22,127	10,966	10,132	13,492	36,063	30,477
1901 . . .	40,134	26,156	78,415	28,243	11,371	14,646	40,977	40,219
1911 . . .	78,000	60,000	12,000	7,000	62,000	60,000	3,000	2,000
1921 . . .	82,000	56,000	17,000	7,000	58,000	51,000	2,000	2,000
1951 . . .	160,342	74,390	9,553	7,771	68,172	59,856	3,844	3,942

205. The statement merely bears out what one would surmise. A very large number of persons move into the district with their families in search of a living; the district sends out a smaller proportion of families to other districts. Emigration to Calcutta is large and not always very temporary.

Calcutta

206. Details of the growth and movement of population in Calcutta will be

found in the separate report for the city. A brief account of the city as a whole is all that needs to be given here. The percentage growth of the wards of Calcutta from decade to decade since 1872 and the three periods 1872-1921, 1921-51, and 1901-51 is furnished below.

	Percentage variation 1901-51	Percentage variation 1921-51	Percentage variation 1872-1921	Percentage Variation							
				1941-51	1931-41	1921-31	1911-21	1901-11	1891-01	1881-91	1872-81
8 CALCUTTA DISTRICT	+176·7	+147·0	+54·1	+20·9	+84·9	+10·0	+3·4	+8·4	+24·1	+14·4	—3·1
Shampukur	+178·9	+125·8	+97·6	+16·2	+66·8	+16·9	+7·5	+18·1	+27·1	+29·4	—1·2
Kumartuli	+149·6	+121·5	—0·1	+12·7	+74·4	+12·7	+2·8	+9·7	+18·3	+3·6	—24·5
Burtolla	+151·7	+106·6	+104·5	+20·9	+55·8	+9·7	+12·0	+8·8	+37·8	+25·9	—3·8
Sukea Street	+160·5	+97·7	+121·2	+10·4	+83·2	—2·3	+15·1	+14·5	+20·7	+42·7	—2·5
Jorabagan	+145·0	+128·6	+84·5	+13·7	+168·6	—25·1	+8·8	+6·2	+25·2	+7·9	—7·1
Jorasanko	+124·7	+107·9	+59·0	+15·3	+123·9	—19·5	—3·8	+12·4	+27·2	+26·9	—8·9
Bara Bazar	+70·5	+63·4	+40·2	—1·4	+192·1	—43·3	+8·1	—3·4	+52·9	—0·6	—11·6
Colootola	+42·8	+184·2	—24·2	+0·1	+83·9	+27·2	+82·5	—9·6	+24·4	+7·3	—6·9
Muchipara	+112·8	+95·8	+59·7	—0·8	+69·8	+15·7	+10·0	—1·2	+29·6	+13·5	—0·1
Bowbazar	+50·8	+50·5	+15·2	+9·7	+76·5	—22·3	+8·4	—7·5	+19·8	+4·8	—8·1
Puddapukur	+128·1	+96·1	+59·3	+2·0	+77·6	+8·2	+8·9	+6·8	+35·2	+1·2	+0·1
Waterloo Street	+119·0	+94·2	+24·6	+28·5	+60·0	—5·6	+13·1	—0·8	+6·2	+2·5	+1·4
Fenwick Bazar	+64·1	+96·2	—2·5	—1·7	+68·2	+18·6	—8·2	—8·9	+10·0	+9·5	—3·3
Taltola	+114·8	+118·7	+16·8	—1·6	+83·2	+21·4	—1·4	—0·4	+10·4	+12·1	—3·9
Kalinga	+49·6	+113·7	—8·0	+29·8	+37·7	+19·6	+3·2	—32·2	+26·9	+11·6	—7·3
Park Street	+64·0	+165·4	—17·3	+32·9	+38·7	+44·0	—28·7	—18·4	+32·8	—7·0	+8·8
Baman Bustee	+16·4	+101·8	—52·1	+57·8	+50·2	—14·9	+0·7	—42·7	+18·6	—24·9	—6·7
Tangra	+402·6	+302·8	+75·3	+45·6	+138·8	+15·8	+0·5	+24·1	+17·4	+24·2	—3·7
Entally	+192·0	+134·0	+75·3	+20·7	+67·4	+15·8	+0·5	+24·1	+17·4	+24·2	—3·7
Beniapukur	+173·8	+119·5	+75·3	+0·6	+88·4	+15·8	+0·5	+24·1	+17·4	+24·2	—3·6
Ballyganj	+167·7	+284·0	+118·0	+34·4	+103·2	+40·6	+27·3	+46·8	+19·2	+11·8	—12·5
Bhawanipur	+213·1	+170·9	+54·6	+21·8	+60·1	+38·9	+5·1	+9·9	+16·6	+12·1	+2·4
Kalighat	+361·4	+299·2	+54·6	+18·7	+142·1	+38·9	+5·1	+9·9	+16·5	+12·1	+2·4
Alipur	+287·8	+215·5	+12·1	+48·3	+60·0	+33·0	+10·3	+11·5	+19·7	+10·2	—30·8
Ekbalpur	+330·7	+196·2	+73·8	+57·8	+79·7	+4·5	+43·7	+1·2	+40·9	—8·3	—12·2
Watganj and Hastings	+58·8	+79·6	+87·5	+31·0	+63·8	—16·3	—21·5	+12·6	+38·5	—4·2	+17·2
Tollyganj	+1,145·2	+566·1	+118·0	+48·1	+219·9	+40·6	+27·3	+46·8	+19·2	+11·8	—12·5
Belliaghata	+558·9	+216·8	+509·9	+57·5	+79·2	+12·8	+25·3	+66·0	+15·0	+184·8	—10·5
Manicktola	+585·7	+229·6	+509·8	+44·0	+104·0	+12·3	+25·3	+66·0	+15·0	+184·8	—10·5
Belgachia	+240·2	+145·4	+122·6	+32·1	+52·8	+21·6	+17·2	+18·2	+29·7	+19·5	+3·6
Satpukur	+429·4	+282·0	+122·6	+66·2	+89·0	+21·6	+17·2	+18·2	+29·7	+19·5	+3·6
Cossipur	+328·2	+208·9	+122·6	+51·1	+68·2	+21·0	+17·2	+18·2	+29·7	+19·5	+3·7
Fort William and Maidan	+173·7	+187·8	+27·5	+97·5	+5·5	+38·2	—28·2	+82·5	—8·0	+8·4	+34·5
Port	—41·3	—5·2	+10·7	—45·2	—5·4	+82·8	—31·4	—9·7	+12·0	—5·7	+69·3
Canals	—73·9	+38·5	—52·4	—34·9	—6·4	+127·1	—74·3	—26·6	+111·6	—30·1	+70·8

207. Eyebrows were raised in surprise and doubt when the population of the Calcutta municipal area was first announced in March 1951. Many had imagined that the city's population would exceed four millions. Some were frankly disappointed. Doubts were openly expressed in the Press. It is hardly as if an apology were needed in presenting a total which fails to come up to popular expectations. But it may be interesting to discuss the implications were the population of Calcutta really 4 millions in all or 1·45 millions more than the 1951 count.

208. A population of 2,548,677 for a city with an area of only 32.32 square miles of which again only 18,136 acres or 28.34 square miles constitute the city proper is no mean figure. It means a density of 89,932 persons per square mile in the populated area. If we leave out of account the total surface area of the maidan, the roads, streets, lanes, parks, ponds and other public places, and remember that, according to municipal regulations, one-third and in some areas two-thirds of every plot of residential land must be left vacant, the built-on ground area shrinks very considerably so much so that the overall density of 78,858 persons per square mile or 123·2 persons per acre really rises to more than 350 persons per acre of built-on land. A closer calculation will probably put the figure at over 370 persons per acre and the thought of 370 persons jostling one another on every acre of land can be very painful indeed. In the next place, more people than at any time before 1947 now come to Calcutta for a living from the suburbs which have overnight as it were produced three new cities (not to mention the growth of other towns in the industrial area), all of which inject into Calcutta for the day a large proportion of their population. The

immediate suburbs of Calcutta, Barrackpur subdivision, Tollyganj, South Suburbs, Garden Reach and Bishnupur police stations contain the majority of the refugee population of 24-Parganas which is 527,262, and it is not unreasonable to assume that a great part of this population comes into Calcutta daily in search of a living and swells the city's traffic. In the next place, more young men and women are now out on the streets in search of situations, who even a few years ago would be studying in schools and colleges and therefore keep off the roads during business hours. Further, during the period of rapid expansion since 1930 Calcutta has not much grown skywards in multi-storeyed buildings but has grown and built only in the south over a space of about six square miles. It is worth while, when one imagines a population of 4 millions in an area of 28·34 square miles, to pause and think what the implications are of such a large population in such a small area. It means a density of 141,143 per square mile in the populated area and in terms of the city's built-on area a density of about 650 persons per acre. Greater Bombay, which is nearest to Calcutta in population, has a population of 2,839,270 in 210·9 square miles or a density of only 13,463 per square mile or 21 persons per acre. Delhi, another large and growing city has a population of 1,191,104 in an area of 39·52 square miles, or a density of only 30,139 per square mile or 47 persons per acre. Good Independent checks are available to corroborate why the city's population cannot be much more than 2·55 millions. They are (1) the tardy growth of housing in Calcutta between 1921 and 1951, of 'pucca' or brick-built and 'bustee' or mud, mat or tin walled premises on the municipal assessment rolls; (2) the city's limited filtered water supply and sewage amenities; (3) a preliminary count taken in the first fortnight of December 1950 in the city and all over West Bengal by a set of persons called house numberers who were different from the final set of enumerators who were recruited after this preliminary count; (4) the population under adult franchise recorded in the electoral rolls of the Corporation area; (5) the exodus of Muslims between 1947 and 1950; and finally (6) the number of food ration cards in circulation in February-March 1951. This six-fold tally will be discussed presently, but it will be well to precede it with a brief review of the population of the city in the 1941 census count.

In fact, this is where the 1951 count sounds improbable and it hurts the citizen's civic pride to accept that after all the water that has flowed under the bridges between 1941 and 1951 the population should have grown by a paltry 439,786 (2,548,677 in 1951 less 2,108,891 in 1941) of which the Displaced population alone who came to Calcutta after 1946 account for 433,228. A growth of only 6,558 in ten years, however large may have been the consequences of the famine and epidemics of 1943-44, the Great Killing of August 1946, the communal riots of January-February 1950, and the exodus of Muslims between 1947 and 1950 sounds improbable to put it very mildly.

209. And yet if one were to put it another way and to say that in 1931 the population of Calcutta was 1·141 million and in the course of the last twenty years Calcutta has increased to 2·549 million or by 1·408 million, or as much again and a quarter more than 1931, the increase, far from appearing suspect, would sound very plausible indeed. It was a one-night census in 1931 and persons who came from suburbs of Calcutta to work for the day in the City were counted in the city and included within its population. At a conservative estimate this population could not have been less than 30,000. So the resident population of Calcutta in 1931, with which a comparison of that in 1951 is feasible, was about 1·11 million. There has been thus a

minimum increase of 1·438 million during twenty years.

210. The population of Calcutta in 1941 therefore cannot be allowed to go unchallenged and it is here that the answer to the question of Calcutta's growth between 1941 and 1951 will be found.

211. In para. 41 of his report of the Census of Calcutta, incorporated at page 194 of the 1941 Report of the Census Superintendent of Bengal (typed script of which is preserved but was not printed owing to economy dictated as a war measure), the Special Officer for Calcutta makes the following observation:

> The house population as recorded in the house-lists for the Calcutta Municipal area was 1,730,074, and the provisional total reached after enumeration was 2,078,370, showing an increase of 19 per cent. This deficiency in house population in the house lists has been variously explained. It has been said that the more ignorant section of the public laboured in the house numbering stages under the misconception that the census inquiry had some fiscal object in view and that their taxes would be enhanced or assessment rates increased. There was also a rumour that a labour force would be imprest and compulsory military service introduced. No doubt these factors explain some deficiency and some inflation at the enumeration stage is not improbable, as both the major communities vied with each other in carrying on a feverish census propaganda towards the end. But the major explanation must be the difficulty of house-numbering and the preparation of the houselists in the bustees. Besides, during the Puja holidays when the house-numbering was mainly done in Calcutta the house population was below its normal strength on account of the Puja exodus to the villages and the health resorts. In any case the variation from the house list population compares favourably with that of the other big municipalities, as the following table will show:

Name of Municipality	House list total	Provisional total	Percentage increase
Dacca . . .	178,222	214,028	20 per cent
Chittagong . .	64,068	83,848	29 ,,
Howrah . . .	289,071	379,576	31 ,,
Calcutta . . .	1,730,074	2,078,370	19* ,,

**(sic) should be 20.1 per cent.*

212. The house-list figure of Howrah is a misquotation; it should have been 278,866 in 69,478 census houses (District Census officer of Howrah's letter No. 4283-G., dated 20 December 1940). The figures finally published in the 1941 Census Tables of Bengal were:

Howrah	379,292
Calcutta	2,108,891

213. All papers and files of one census are preserved until the conclusion of the next. Files relating to estimate of charges, circles, blocks, mauzas, and provisional houselist estimates (called second charge abstracts) for every area are preserved for the guidance of the next census, as they constitute the only guides for printing of circulars and forms on the next occasion. As anything but close estimates are liable to land the census organisation either in a bad hold-up in the event of a shortage, or to let up the budget on much unnecessary expenditure in extravagant surpluses which its leanness cannot afford, these files are particularly carefully preserved. Fortunately preliminary estimates of houselist populations for every district, city or town of Bengal in 1941 were available in January 1950 when the census department opened shop again, except the file on the houselist estimates of Calcutta which repeated searches have failed to trace. If that were available it would help us to pin point those areas which harboured mischief in 1941 but that was not to be.

214. The possible reasons for a smaller house-list estimate advanced by the Special Officer of 1941 do not bear scrutiny. It will be remembered that in December 1940 World War II had just started and was in the "phoney" stage. Calcutta did not have a war atmosphere at all until well after Japan had entered the war in December 1941. If fear of conscription or tax had deterred citizens in December 1940 it would have deterred them equally in March 1941. If it were a genuine apprehension it could have been countered by proper public assurances but no publicity was required in 1940-41 to

impress that the census had nothing to do with any prescriptory law. As for the difficulty of housenumbering and preparing houselists in the bustees which the Special Officer cited as the "major" reason the following is an extract from paras. 38 and 39 of his report at page 192 of the Census Report of 1941. It may be said by way of explanation that estimates of population are based on the houselists and not on housenumbers.

> On the whole the preparation of the houselists was done better than the actual numbering of the houses. In many cases, though the tar mark was omitted, the houselist often enough showed the details of the several census house. Except in ward 21 (Ballyganj) the mistakes and omissions were not so many that the lists failed to give a sound basis for the information that the enumerator required as to the places he had to visit on his rounds. When after the completion of the houselists at the end of December, the public were invited to report the cases of omission and mistake, several complaints poured in. In most cases they were based on a misunderstanding of the census procedure in Calcutta.

215. The Special Officer then goes on to enumerate the misunderstandings which were also the experience of the 1951 operations. But to judge by the results of the 1951 estimate they could not have been good enough to account for a difference in 1941 of about 379,000. In 1951 they accounted for only 8,320 persons. The Report of 1941 does not attempt even a brief analysis of the two totals ward by ward. Even a population of 1,730,074 in 1941 sounds a great deal more than it need have been because it gives an increase of 589,212 on the 1931 population. Already, long before the houselist population was estimated in December 1940, the rot had started in April 1940 when, as the records show, the two major communities were locked in combat and their leaders had begun to exhort their followers to show themselves strong in the ensuing census. It is therefore unlikely that the population of 1,730,074 itself should not have been an exaggeration. It yields a ratio of 4·6 persons per census house which is quite large for Calcutta. The houselist population of Howrah yielded only 4 persons per census house.

The variations are as follows:

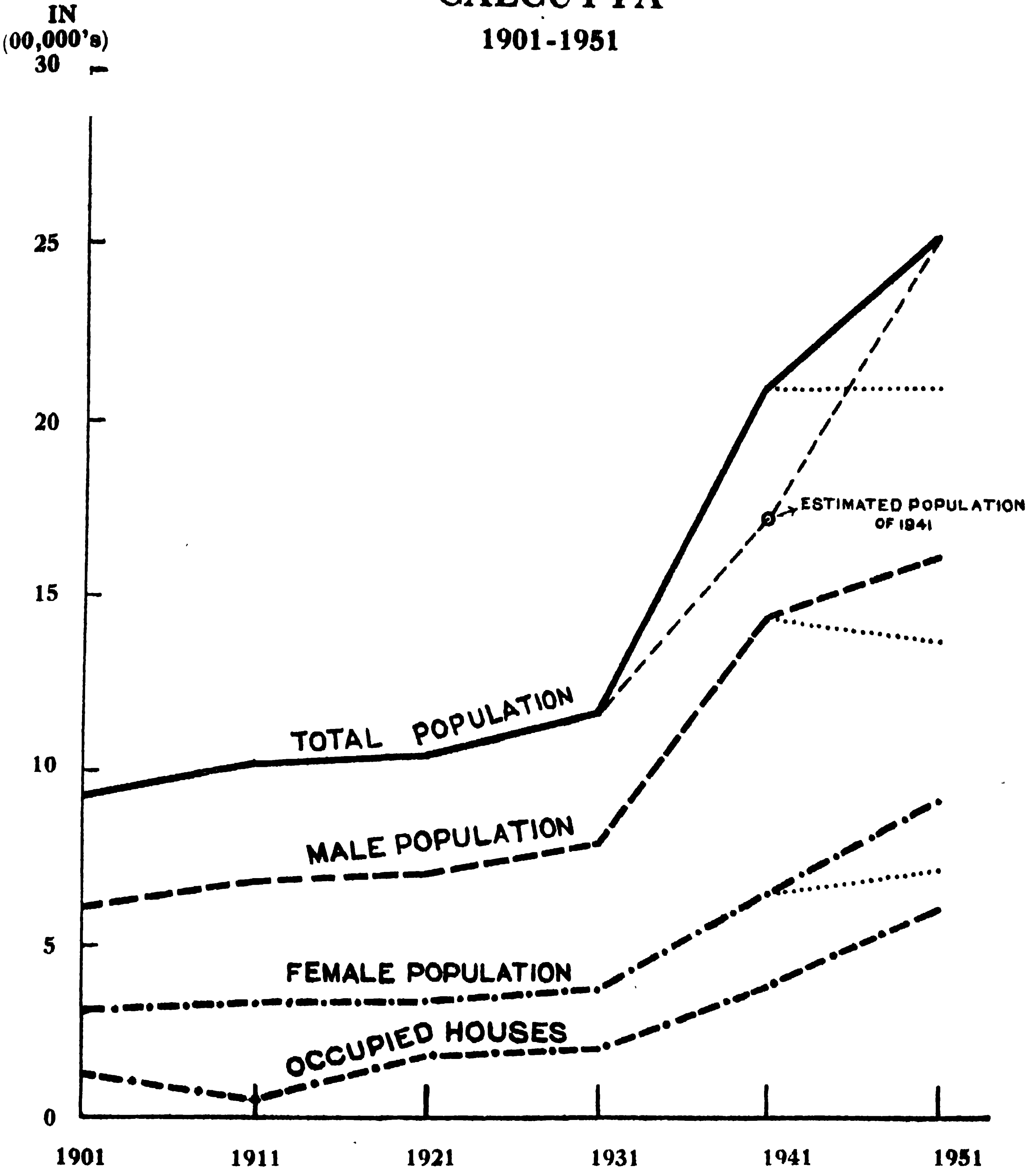
	Census houses	Population	Number of persons per census house
I CALCUTTA			
According to houselists of 1941	376,158	1,730,074	4.6
According to final figures published 1941	376,158	2,108,891	5.6
According to houselists of 1951	654,415	2,540,357	3.9
According to final figures published 1951	606,026	2,548,677	4.2
II HOWRAH			
According to houselists of 1941	69,478	278,866	4.0
According to final figures published 1941	64,757	379,292	5.9
According to houselists of 1951	90,291	447,882	5.0
According to final figures published 1951	96,287	433,630	4.5

NOTE—The number of census houses in Calcutta at the houselist stage of 1941 is not available, and so the final figure has been taken. From the trend of the 1941 Special Officer's report it will appear that not more than 5,000 census houses were missed at the housenumbering stage. In 1951 the number of census houses at the house-list stage exceeded the final figure because it was finally decided to call one room one census house even if it contained more than one social unit.

216. It will thus appear that none of the reasons except one listed by the Special Officer of 1941 can bear scrutiny. The only valid reason was communal rivalry and the whole of the Special Officer's report is interlarded with complaints against the spirit that prevailed. It is embarrassing for a public servant to lay the charge of corrupt practice at the door of the citizen. but that charge seems irresistible. The Special Officer's hesitancy and reticence are therefore understandable. This is how he began in his comments on general enumeration at para. 63 (page 211).

> As I have already pointed out, the best possible enumerating agency was appointed in Calcutta, but it did not rest with the enumerators alone. It rested mainly in the hands of the citizens but unfortunately in Calcutta, on account of the communal agitation, such a tense and vitiated atmosphere prevailed from the middle of January that the path of both the enumerators and the average citizen was beset with difficulties.

POPULATION AND HOUSES IN CALCUTTA 1901-1951



THE DOTTED LINES EMERGING FROM 1941 LINE MEET THE 1951 LINE AT POINTS WHICH WOULD HAVE BEEN THE TOTAL, MALE AND FEMALE POPULATION OF CALCUTTA CITY, IF THE 'DISPLACED' POPULATION (TOTAL 433,228 MALES 234,242 FEMALES 198,986) IN THE CITY WERE OMITTED FROM THE RESPECTIVE TOTALS FOR 1951

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Communal suspicion was the order of the day in Calcutta, the census agency both official and non-official were predominantly Hindu, and this fact was deliberately given colour as a factor detrimental to Muslim interests. A Muslim senior officer was appointed as Additional Special Census Officer in the eleventh hour to restore Muslim confidence.

217. This appointment was an embarrassment to the Census Superintendent who in a marginal comment on para. 83 of the Special Officer's report wrote "His salary was paid by the Local Government". The appointment was imposed all too suddenly on the 18th February, 1941 to last till the 31st March of that year hardly allowing time to inform even the Census Commissioner, who in a letter (580/4-4), dated the 8th April, 1941 wrote to the Bengal Superintendent "Nor did I know anything of the extra Muslim appointment. The Census Commissioner for India should be kept informed of such developments, the latter especially".

218. It is needless to quote more passages of comment on the contemporary scene except the following from paras. 8 and 9 of the Superintendent's report: "Rival exhortations begot mutual suspicions, charge and countercharge were hurled from opposing quarters, intemperate comments in the Press exacerbated tempers, until all moderation evaporated in the heat of competition. During the count itself excitement passed all bounds, communal passions inundated the country and the air was loud with rumour. The extent to which this agitation affected the actual count is a theme for speculation which experts will doubtless essay, but which is not germane to the object of this report. No estimate is expressed here. It will suffice to observe that the implications have not been left unconsidered, and that the tables would not be published under official authority if it were felt that they were seriously in error".

219. The logic of facts therefore suggests a ceiling population of 1,730,074 for Calcutta in 1941 and not of 2,108,891 as finally printed. The latter must have been the outcome of much corrupt practice on the part of the citizen.

220. Normally there should be a close correspondence between the preliminary estimate of the houselists and the final population, because if there is a in less than two months. The following slack in the organisation as late as December it is difficult to make it up ing statement shows the correspondence between the houselist and final populations of Calcutta in 1951. The houselist population of the wards was forwarded by the Special Officer of 1951 in his letter No. 403/CC, dated the 13th December 1950 and of the Special Areas in his memo. No. 204/CC, dated the 16th January 1951.

STATEMENT I.68

Houselist and Final Populations in the Wards of Calcutta, 1951

Ward	Houselist population	Final population	Excess (+) or Deficit (—) of population over houselist population
1 Shampukur	128,818	128,412	—406
2 Kumartuli	75,633	75,278	— 355
3 Bartolla	124,694	126,384	+1,690
4 Sukea Street	106,576	109,488	+2,912
5 Jorabagan	118,873	120,200	+1,327
6 Jorasanko	116,527	119,070	+2,543
7 Bara Bazar	50,050	53,846	+3,796
8 Colootola	87,710	90,203	+2,493
9 Muchipara	130,423	136,446	+6,023
10 Bowbazar	39,359	40,794	+1,435
11 Puddapukur	66,843	64,006	—2,837
12 Waterloo Street	10,745	13,799	+3,054
13 Fenwick Bazar	47,604	51,217	+3,613
14 Taltola	69,037	69,254	+217
15 Kalinga	23,356	25,107	+1,751
16 Park Street	10,239	10,022	—217
17 Baman Bustee	5,861	6,351	+490
18 Tangra	41,123	40,935	—188
19 Entally	89,003	89,351	+348
20 Beniapukur	71,817	76,907	+5,090
21 Ballyganj	83,700	84,029	+329
22 Bhawanipur	114,317	118,701	+4,384
23 Kalighat	55,223	54,098	—1,125
24 Alipur	59,824	68,704	+8,880
25 Ekbalpur	75,103	93,064	+17,961
26 Watganj and Hastings	48,023	69,621	+21,598
27 Tollyganj	189,306	192,989	+3,683
28 Belliaghata	88,366	93,772	+5,406
29 Manicktola	123,002	124,491	+1,489
30 Belgachia	35,877	44,924	+8,047
31 Satpukur	57,077	60,306	+3,229
32 Cossipur	62,359	69,152	+6,793
33 Fort William and Maidan	..	9,113	..
35 Port	..	17,481	..
34 Canals	..	1,162	..
	2,407,468	2,548,077	+8,320
74 Special Areas	132,889		
	2,540,357		

221. These 74 Special Areas were after the enumeration merged in the respective wards to which they territorially belonged. In January 1950 the population of Fort William was estimated at 9,159. The final population of the Port represents the population on the river in ships, steamers and boats and on that part of the land outside the Calcutta Corporation which falls in South Suburbs municipality and King George's Dock in Garden Reach Municipality. The greater portion of the excesses in the final count in wards Cossipur, Jorabagan, Jorasanko, Bara-Bazar, Waterloo Street, Ekbalpur and Watganj and Hastings is explained by the fact that parts of the Hooghly riverside and the Port of Calcutta fall within these wards and as the note in the Tables Volume of this Report will show, the populations of these sections of the Port and riverside as well as the population of Special Areas falling within these wards have been amalgamated in the ward population. Sukea street, Colootala, Fenwick Bazar, Manicktola, Belliaghata, Belgachia and Cossipur wards used to contain mixed populations of Hindus and Muslims before the riots of January-February 1950. During the riots most of the bustees were deserted and many empty hutments were later gutted by fire by hooligans. Between December 1950 and March 1951 almost all these deserted areas were rehabilitated and filled up by large settlements of Displaced Hindus from East Bengal in certain wards and large blocks of resettled Muslims from various parts of the city and Howrah in others. They finally sorted out no more in mixed but clear cut blocks of communities. In Beniapukur, Bhawanipur, Alipur, Tollyganj and Satpukur Displaced persons poured in between December 1950 and March 1951 as a result of the West Bengal Government's scheme of dispersal from Refugee Transit Camps at that time. This explains all the major discrepancies between the houselist population of Calcutta and its final population within an interval of two months and a half, and the small unexplained discrepancy that still remains is easily explained by migrations and the balance of births and deaths during the interval.

222. Incidentally, this disposes of the third method of tally mentioned at the beginning of this discussion. The first kind of tally may now be taken up, which is the growth of housing between 1921 and 1951, of *pucca* and *bustee* houses. The following figures have been obtained by courtesy of the Calcutta Corporation. The wardwise breakup of *pucca* and *kutcha* houses in October-December 1940 is recorded at page 268 of the 1941 Census Report of Bengal, and their totals (70,754 *pucca* and 5,139 *bustee*) are, as they should be, mid-way between the figures of 1940 and 1941 supplied by the Corporation.

Year	Pucca Houses	Bustee Houses	Total
1921	44,721	5,283	50,004
1931	62,140	5,750	67,890
1935	66,819	5,485	72,304
1936	63,137	5,425	68,562
1937	64,501	5,386	69,887
1938	66,225	5,348	71,573
1939	67,977	5,267	73,244
1940	69,754	5,184	74,938
1941	71,488	5,067	76,555
1942	72,932	5,005	77,937
1943-44	74,702	4,875	79,577
1944-45	75,303	4,805	80,108
1946	75,550	4,660	80,210
1949	77,329	4,394	81,723
1950	78,005	4,308	82,313
1951-52	78,697	3,690	82,387

223. The decrease of *pucca* houses in 1935-36 and of *bustees* from 1931 onwards are due to the activities of the Calcutta Improvement Trust in improving the city's living conditions on account of which the Trust has been systematically clearing up congested areas and slums in the north and north-east while creating new building areas in the south and south-east. As a result of the Trust's activities there are fewer *pucca* houses and *bustees* in the northern and north-eastern wards of the city to-day than in 1931 or 1941 and the slack in *pucca* houses in these wards has been more than made up in the

southern and south-eastern wards. While new *bustees* are discouraged and perhaps prevented, except those that grow on the sly, by the Trust in the city, new *bustees* and slums are raising their ugly heads just outside its jurisdiction in Tollyganj.

224. Returning from this digression one would like to have a look at the ratios in 1921, 1931, 1941 and 1951. The following statement shows in the last column the ratios of population to total houses in 1921 and 1931; for 1941 separately the ratio of houselist population and of final population to total houses, and for 1951 the ratio of final population to total houses in 1950 and the ratio of a hypothetical population of 4 millions to total houses in 1950.

Year	Population	Total Municipal premises	Population per Municipal premise in Calcutta
1921	1,031,697	50,004	20.6
1931	1,140,862	67,890	16.8
1941	1,730,074 (Houselists)	76,555	22.6
1941	2,108,891 (Final)	76,555	27.5
1951	2,548,077 (Final)	82,313	31.0
	4,000,000 (Hypothetical)	82,318	48.64

225. The plausibility of Calcutta having had a population nearer to 1,730,074 than to 2,108,891 in 1941 is at once brought out by the above statement. Overcrowding and housing shortage was not at all acute in 1941. As a matter of fact the housing situation in 1941 was almost as easy as in 1931 and 1921; which is to say that building kept pace with the growth of population. The pinch started in 1944 when Bengal became a full-fledged rear of the war in the east. If the population were really four millions today we would have an average of 49 persons per house. That is indeed a pretty impossible figure considering the size of houses in Calcutta. Besides, the number of living rooms as counted in December 1950 was 710,579. The average number of persons per room with the population at 2·55 million works out at 3·6, but with a population of 4 millions it would work out at 5·6 each. This is much too high a figure for rooms even with a very generous average of 12 feet by 12.

226. It is worth while to estimate the exodus of Muslims from Calcutta between 1941 and 1951 and the extent of the living accommodation vacated by them to be by the Displaced population later utilised. This also will give us an idea of the extent of the Displaced and other immigrant population that have in an absolute way contributed to overcrowding and the housing shortage in the city. The following is a statement of Hindus and Muslims in Calcutta between 1901 and 1951.

Year	Hindu population	Muslim population	Muslim population as percentage of Hindu population
1	2	3	4
1901	603,310	270,797	44.9
1911	672,206	275,280	41.0
1921	725,561	248,912	34.3
1931	796,628	281,520	35.3
1941	1,531,512	497,535	32.5
1951	2,125,907	305,932	14.4

227. The ratio of 1941 is suggestive of the clever way in which both communities inflated their strength in the 1941 count. The diminishing ratio of Muslims from 1901 onwards is accounted for by the increasing proportion of immigrants in the population of Calcutta and the preponderance of Hindus among them. The ratio of 1951 is low. If from the total population of Hindus in 1951, the Displaced population (433,228) were deducted, the proportion of Muslims would rise to 18·1 which would still be low. If the balance of total immigrants between 1941 and 1951 (see Statement I.70) were deducted the proportion would rise to 21.2. The following statement illustrates in tabular form the implications of these hypotheses. It has been assumed for the purpose of simplicity and elimination of error that

all immigrants and emigrants in 1941 and 1951 have been Hindus.

1	Population of Hindus in Calcutta in 1951 including Displaced Persons.	2,125,907
2	Population of Hindus in Calcutta in 1951 excluding Displaced Persons.	1,692,679
3	Population of Muslims in Calcutta in 1951.	305,932
4	Population of immigrants in 1951 including Displaced Persons.	1,389,023
5	Population of estimated emigrants to other States of India in 1951.	44,536
6	Population of Displaced Persons in 1951.	433,228
7	Population of immigrants in 1941.	690,550
8	Population of emigrants in 1941 .	26,591
9	Net migration in Calcutta during 1941-51 between Bengal and other States excluding from calculation the Displaced population of 1951 (Item 4—item 6—item 5—item 7 + item 8).	247,300
10	Assumed net population of Hindus in 1951 (excluding Displaced Persons)=1,692,679—247,300.	1,445,379
11	Percentage of 3 to 10. . .	21.2

228. This (21.2) would also be a low figure if we assumed that no Muslim had left Calcutta on the eve of the 1951 Census count. It is low particularly because we have put the population of Hindus at a low mark first by deducting the net migration between 1941 and 1951 and secondly by making another assumption that all net immigration from outside Bengal was Hindu. From the trend of figures since 1901 we might regard 30 per cent. as nearer the mark in 1951 than 21.2, assuming that no Muslim had migrated or left Calcutta. In that eventuality the population of Muslims in the 1951 count would stand approximately at 433,614. If the percentage of Muslims were to be 32, the population of Muslims would be 462,521. We may therefore put our estimate of the number of Muslims who were away from Calcutta on the eve of the 1951 Census at about 127,682. The outside limit of this figure would be 156,589. For a corroboration that the number would be somewhere in between we may consider the natural population of Calcutta in 1941 in Statement I.70. The figure of immigration for that year suggests that that too was falsely inflated. Since we have no information on the religious pattern of migration for 1941 it would be safe to assume the population of Calcutta in 1941 to have been its houselist population of 1,730,074. On applying the observed trend of Muslims constituting roughly 30 per cent. of Hindus which for the purpose of this paragraph has been made synonymous with the non-muslim population in 1941 a Hindu population of 1,330,826 and a Muslim population of 399,248 are obtained for 1941. If, as has been done, a net Hindu population (excluding Displaced persons and net immigrants during 1941-51) of 1,445,379 in 1951 is assumed it represents a growth rate of 8·6 per cent. for the ten year period on the deduced Hindu population of 1941 (1,445,379 less 1,330,826 as a percentage of the latter). This is the growth rate for the Muslim population as well between 1941 and 1951 (433,614 less 399,248 as a percentage of the latter). But since the observed rate of growth among Muslims is slightly higher than among Hindus it may not be going far out to put the rate at between 9 and 10 per cent. for the ten year period, which would place the Muslim population in Calcutta, had it kept to the city entire, at about 437,000 in 1951. Thus it may be assumed that about 131,000 Muslims were away from the city on the eve of the 1951 count. The West Bengal Government put the number of Muslims who migrated from Calcutta to East Bengal through fear of disturbances at 15,000 of whom 11,000 later returned. About 116,000 Muslims, therefore, left Calcutta for other reasons.

229. The growth rate of 8·6 for Hindus for the decennium 1941-51 for Calcutta and of about 9·5 for Muslim cannot be regarded as either low or high in view of the famine and epidemics of 1943-44 and the riots of 1946 and 1950.

230. Thus while about 131,000 Muslims had left Calcutta on the eve of the 1951

Census about 433,228 Displaced Hindus had come in, giving a net increase of about 302,228 to the city in 1951.

231. The number of effective food ration cards in circulation in Calcutta municipal area is another good check on the 1951 count. Shortly after the 1951 Census a conference was held with the Food Commissioner, West Bengal. The figures for the six cities were as follows:

City	Total population according to 1951 Census	Ration cards	
		Registered	Effective
Calcutta	2,548,677	3,000,204	2,879,638
Howrah	433,630	600,812	568,961
Tollygunj . . .	149,817	188,943	181,441
Bhatpara . . .	134,016	132,291	124,534
Garden Reach . .	100,160	160,505	145,951
South Suburbs . .	104,055	120,373	115,648

232. The Food Commissioner recorded the minutes of the conference of 14 May 1951 as follows:

A conference was held today with the Superintendent of Census Operations, West Bengal and Sikkim, and Director of Rationing. Attempt was made to reconcile the total number of effective ration cards in Calcutta Industrial Area minus the outside rationed area population with the census figures in the following way—

Total effective cards . .	52·78 lakhs
Deduct—·50 lakh on account of people living outside rationed areas but drawing ration from Employers' shops.	
Deduct—·15 lakh on account of pavement population omitted from census enumeration.	52·13 lakhs
Deduct—5·21 lakhs as probable number of ghost cards at the rate of 10 per cent.	
Total . .	46·92 lakhs

or say 47 lakhs against the total census figure of 45·50 lakhs (*sic.*, should be 45·78 lakhs). There is thus a difference of 1·50 lakhs (*sic.*, should be 1·22 lakhs) which can not be reconciled today. It appears that the difference between the number of effective cards and the census figure is proportionately very high in respect of Howrah and Tollyganj (24-Parganas) Rationing Areas. It is decided that further investigation is necessary as to whether in these two areas the number of ghost cards is appreciably higher than 10 per cent. of the number of effective cards or whether the census enumeration in these two areas was as accurate as in other areas.

233. The accuracy of the 1951 Census count with reference to effective ration cards so far as the Calcutta Municipal area is concerned is therefore established. As for Howrah and Tollygunj the following note, dated 17th July, 1951 of the Director of Rationing to the Food Commissioner explains the differences rather satisfactorily.

Enquiries reveal that (*a*) at Howrah the census figures have excluded (i) a large number of floating population with ration cards, who attend hats during the day and move away to neighbouring non-rationed areas at night; (ii) continuous stream of temporary visitors from non-rationed areas who were already enumerated in such areas; (iii) certain Bihari population who wanted to have themselves enumerated in their mother state. This has been ascertained from one of the Rationing Officers who has amongst his staff an enumerator. This tendency might have been wide-spread. The Census Superintendent also tells me that about that time (meaning the census period —A.M.) owing to closure of certain jute mills some of the labour population having ration cards might have left. (*b*) As regards Tollyganj, the discrepancy is due to refugees dispersed from camps to neighbouring non-rationed areas and still drawing rations from the sub-area. Now with the rewriting of cards they are being chased out. I think all these factors would explain the discrepancy of 1·50 lakhs (*sic.*, should be 1·22 lakhs). It may be safely assumed as suggested by Food Commissioner that 10 per cent. of the cards are spurious.

234. This brings us to the other check of the 1951 count with the help of Voters' Lists for the General Elections of 1951. The draft rolls containing 1,406,834 voters for the Calcutta Municipal Area were published on 21 December 1950. The final rolls containing 1,418,637 voters were published on 7 September 1951. The first or draft figures are nearer to the census in point of time than the final lists. Under adult franchise, the percentage of population over 21 in Calcutta was 60 of the total population. If 1,406,834 represents the adult population of Calcutta of over 21 then its total population would be 2,344,723. To this is to be added 162,912 Displaced persons who came after the 1st August 1949 and were debarred

from the vote. The total makes 2,507,635 against the actual of 2,548,677. The Election Department, however, does not claim that its voters' lists covered all adults.

235. As for the checks obtainable from the city's water supply and sewage disposal the following statement gives the figures for 1931, 1941 and 1951. Supposing for the sake of argument that the population of Calcutta were 4 millions in 1951 it would at once appear that the majority of the population in that event would go without drinking water or even unfiltered water for common washing purposes and, moreover, stink in their own sewage. Things have not come to such a pass yet.

	1931-32	1941-42	1950-51
Average daily supply of filtered water in million gallons.	59.6	72.8	67.5
Average daily supply of above *per capita* in gallons.	52.3	34.5	26.5
Average daily supply of unfiltered water in million gallons.	50.3	67.9	96.3
Average daily supply of above *per capita* in gallons.	44.1	32.2	38.6
Average daily disposal of sewage in million gallons.	188.0	192.3	211.0
Average daily disposal of sewage *per capita* in gallons.	164.8	91.2	82.8

236. Calcutta has grown largely on immigrants. Statement I.69 shows the proportion of two age groups (*a*) the young population of 0-15, (*b*) the adult population of ages 15-60. The proportion of married women (15-40) to total population will show how heavily Calcutta leans on an adult non-family population.

STATEMENT I.69

Percentage of age groups and of married women (15-40) to total population and of children (0-5) to married women (15-40) in Calcutta, 1901-51

Year	Percentage of persons, males and females to total population						Percentage of married women (15-40) to total population	Percentage of children (0-5) to total married women (15-40)
	Age group 0-15			Age group 15-60				
	P	M	F	P	M	F		
1	2	3	4	5	6	7	8	9
1901	21·9	18·4	28·6	73·1	77·6	64·5	10·9	65·2
1911	22·1	18·2	30·0	73·3	78·1	63·5	10·9	63·8
1921	23·0	19·3	30·9	72·9	77·3	63·5	11·4	61·4
1931	24·7	20·3	34·1	72·2	77·1	61·8	11·7	72·5
1941	24·5	20·0	34·5	72·7	77·7	61·6	10·7	72·2
1951	20·7	24·3	39·4	67·4	73·2	56·9	11·3	99·6

237. A comparison with statements of other districts will at once illustrate the peculiarities of Calcutta's population. Whereas in other districts south of the Ganges the proportion of the young population (0-15) is about 35 to 37 or more of the total population, in Calcutta it is as low as about 23. The proportion of boys (0-15) to total male population is as low as about 19, which is a welcome feature in the sense that not many young boys below 15 roam the streets and factories of Calcutta for a living. By contrast the relative abundance of young girls among the total female population is due to several reasons: (*a*) the absolute number of females in Calcutta is small as a result of which ages are more sharply distributed; (*b*) there are still many young brides of age below 15 in the country and city whose proportion is accentuated in the small female population of Calcutta; (*c*) there are large female populations who are on their own and underdeclare their ages; (*d*) on account of the facilities afforded by girls' schools in Calcutta parents all over the country prefer to put their daughters in school in the city, whenever

they can afford to do so; (e) specific mortality among women is much greater than specific mortality among men. This last reason of course is the most important. The high proportion of males aged 15-60 in Calcutta's population shows the effect of the preponderance of a large immigrant adult working population, and column 8 shows what a small percentage of Calcutta's population, compared to other districts, live normal family lives. This proportion is usually 16 and above in other districts. Column 9 shows for 1921 the effect of the influenza epidemic and conditions created by World War I, and for 1931 and 1941 a slight increase in the size of the family. Figures for 1951 in every column have been thrown out of plumb by a large Displaced population (433,228) who have settled in Calcutta, wives, children and all, thus introducing an element of social health in the city and a little more of the normal family pattern in its life. But the city still remains predominantly a place of business and work.

STATEMENT I.70

Immigration and emigration in Calcutta from and outside the State, 1891-1951

	1951	1941	1931	1921	1911	1901	1891
Actual population . . .	2,548,677	2,108,891	1,140,862	1,031,697	998,012	920,933	741,889
Immigration	1,389,023	690,550	378,776	371,575	397,274	324,914	249,891
Emigration	44,536	26,591	22,301	46,000	34,000	3,344	5,500
Natural population . . .	1,204,190	1,444,932	784,387	706,122	634,738	599,363	497,498
Percentage variation . . .	—16·7	+84·2	+11·1	+11·2	+5·9	+20·5	..

238. The figure for 1951 includes 433,228 Displaced persons. The statement shows the slow pace at which Calcutta progressed up to 1931 and the rapid bounds immigration made in 1941 and 1951 owing to the prospects of employment the city offered during World War II and the boom thereafter. The years 1921 and 1931 suggest a depression in the working centres of Calcutta. Statement I.71 below shows how much of employment the small space of 32·32 square miles provides to immigrants from other districts in the State.

STATEMENT I.71

Migration between Calcutta and other districts of Bengal in 1891-1921 and West Bengal in 1951

Year	Immigration				Emigration			
	From contiguous districts		From other districts		To contiguous districts		To other districts	
	M	F	M	F	M	F	M	F
1891 . .	35,433	27,941	126,022	54,906	632	850	3,260	3,699
1901 . .	55,110	40,324	245,389	82,518	8,517	8,659	8,023	8,043
1911 . .	58,000	46,000	125,000	54,000	25,000	23,000	5,000	5,000
1921 . .	61,000	38,000	123,000	53,000	16,000	13,000	6,000	7,000
1951 . .	87,141	51,657	115,766	58,590	69,842	30,417	17,506	26,422

239. This shows to what extent men only are inducted into Calcutta from other districts except Howrah and 24-Parganas from where immigrants usually move in with their families. Emigration predominantly represents those whose parents were on short or periodic visits to Calcutta on business.

240. The extent of migrants who have swarmed into Calcutta may be judged from the fact that only 846,500 persons or a third of the total population returned themselves as having been born in the city, another 313,154 or about 12 per cent. as having been born in other districts of West Bengal; 676,660 (26·5 per cent.) persons in other States of India, of whom 425,797 persons (about 17 per cent.) were born in Bihar, Orissa and Assam. 685,672 persons (27 per cent.) were born in Pakistan, of whom 433,228 (17 per cent. of Calcutta's population) are now settled as 'displaced' in the city. Excluding those born in Pakistan, the number of persons born in 'countries in Asia beyond India' is 19,690; in European countries 5,444; in Africa 112; in the two Americas 926; in Australasia 104. This gives a brief idea of the very complex mosaic that is Calcutta's population.

Nadia

241. Statement I.72 gives an account of the progress of population in truncated Nadia between 1872 and 1951. As in all other districts affected by the Partition the population of each administrative division of the district has been adjusted to its present area.

242. The statement shows the appalling depopulation of the district during 1872-1921 affecting almost every police station, except Krishnagar and Nabadwip. Depopulation continued even in 1931 and the increase in 1941 is due to more than one reason: (i) bogus inflations in the 1941 census count, (ii) immigration from other districts and states, and (iii) improvement in the health situation of the district as a consequence of several minor drainage schemes. The increase in 1951 is patently due to immigration of Displaced persons into the district. Decreases in Tehatta and Karimpur are due to continuation of insanitary conditions and exodus of Muslims to Pakistan. According to the West Bengal Government 223,350 Muslims migrated into Pakistan between 1947 and 1951, of whom 121,595 Muslims later returned. This was the heaviest exodus of Muslims for any district in the State. By contrast the exodus of Muslims from the neighbouring border district of Murshidabad was only 5,970 of whom all returned later. Between 1901 and 1951 health conditions greatly improved in the district but the fact remained, as will be seen in statement I.39 read with Statement I.72, that immigration into Krishnagar, Nabadwip, Ranaghat, Chakdah and Santipur and the heavy influx of Displaced persons were mainly responsible for this apparent increase. If these elements, as will be presently seen, were excluded, every decade would show a decrease.

243. Clearly, the causes for decay in Nadia's population has to be found in the conditions obtaining in the district whether in its climate or agriculture. It will be recalled that the Burdwan Fever worsted the district between 1860 and 1872. There are records to show that already by 1870 the reasons for this scourge had been located. There are several excellent dissertations on the depopulation of this district, of which two of the more important ones are easily available: *Malaria and Agriculture in Bengal* by C. A. Bentley and *Rivers of the Bengal Delta* by S. C. Majumdar. But it is important for the purpose of this study to go to much earlier sources and show that even at the time the epidemic raged in the nineteenth century, its causes were located but the Government regarded it as beyond its power to tackle them at the source.

244. The following is a letter No. 6, dated the 31st December 1867 from J. Westland, Joint Magistrate of Nadia to the Collector of Nadia, stating the cause of depopulation of Nadia. (Reprinted from pages 238 to 239 of Selections from the Records of the Government of Bengal relating to the Nadia Rivers, 1848 to 1926):

I have the honour to acknowledge the receipt of your docket upon Commissioner's

No. 6 of 18th December, 1867, which I herewith return. I have recently (21st December) sent you a pretty full report upon the very subject; and as my observation and the Executive Engineer's information, though perfectly independent, tend to the same conclusion, I take it that they are some evidence of each other's reliability.

2. My discussion of the matter in the communication just referred to, leaves me the less now to say. The depopulation of the region named is a fact. Of that there can be no doubt, though I think the Executive Engineer overstates it. The epidemic, which has arisen from the jungle and waterless state of the villages, has carried off a fair share of the deficient inhabitants, and the rest may be put down to the desertion of their houses by many of the villagers. This latter is caused both by the panic caused by the epidemic, but principally from the pure inconvenience of living in villages that are little better than an arid wilderness, so covered are they with jungle and so destitute of water-supply.

3. The zemindars' treatment of their ryots has much to do with it, for it takes a great deal to make a ryot leave his ancestral home, and he might be willing to endure a jungly and malarious and waterless home if the zemindar's conduct left a possibility of existence comfortable in other respects.

4. I was previously aware of a migration southwards, either to the parts about Calcutta or further south. Since the date of my letter above quoted, I have received reliable information that Nuddea ryots are migrating also to the Jessore District.

5. You ask me what measures I would wish to adopt for the sanitary improvement and relief of the places mentioned. I have discussed them partly in my previous letter, and I classify them thus:—

1st—Clear the villages of the overgrown jungle, and fill up those pools of black stagnant water which mark where the material for mud houses has been taken from. Compel the zemindar to let out the land so cleared on terms which will allow some margin for risk and profit to the ryot, so that it may not so readily return to its present state.

2nd—Give the villagers a water-supply by restoring the old tanks.

6. I may be allowed to repeat here the opinion I expressed before, *viz.*, that, unless we make the burthen of the above work fall upon the Zemindars, we will only temporarily remove the evil, and we will have the whole thing to do again in ten years' time. We must make it a matter of self-interest to the Zemindars to keep their estimates in an uninjured state by compelling them to repair at their own expense the deterioration they cause stimulated by partnership disputes, by his (*sic*) own self-aggrandizement and by the uncertainty of his (*sic*) tenure (for estates and under-tenures are perpetually being transferred by sales under decree). Each Zemindar and under-tenant religiously pursues the policy of "killing the goose which lays the golden eggs", and the result which is now beginning to be realized is the most natural thing in the world. I am afraid a complete remedy will be found only in a complete change of the relations between Government, the Zemindars and the ryots, at the expense of the Zemindar and his position, which is very much more than the theory of the Indian land system gives him.

7. This is a question which is however much too wide to be entered on at present; and I allude to it only because the evils complained of, along with a hundred others, may all be traced up to this ultimate source.

8 One matter, however, which is very closely connected with the jungle and the uncultivated state of villages in the region under consideration, has to do with cows, and cattle trespass. I collected some facts about it about three weeks since, and would have written you sooner, but that I have not as yet ascertained the issue of one of my principal acts.

245. The following letter from H. Williams of the Church Missionary Society, Ballabhpur, dated 5th January 1884 to the Assistant Collector of Meherpur is of considerable interest as discussing the scarcity of water in the district, loss of fertility of the soil and the prevalence of disease. (Reprinted from pages 291-93 of Selections from the Records of the Government of Bengal relating to the Nadia Rivers, 1848 to 1926):

I am anxious to bring to your notice a matter which has occupied much of my attention during the last three years, namely, the state of the rivers in your subdivision.

As you are aware, my work brings me into a very close acquaintance with all the villages of the Meherpur district, I may perhaps venture to boast that, as regards the outward aspect of the country, no one knows it so as I do. There is hardly a *mat* or a village that I have not walked through last rainy season. I walked all round the district, visiting the villages on the banks of the Jellinghee, Ganges, and Matabhanga rivers. I mention this in order that I may not be accused of rashness in writing about what I have no knowledge of.

Lest I should be charged with being over-officious, I would say that I do not wish to be understood as dictating to you what ought to be done. My letter is a protest, such as every one who sees a great evil has the right and is bound, to make. It is a protest against the inaction of the Government in allowing the country to be most seriously, perhaps irretrievably, injured by neglecting to preserve the rivers.

If any one unacquainted with the true state of the case were to glance at the map, he would at once remark upon the excellence of the water system. He would see the country intersected in every direction by rivers. He would think that two of the requisites 'for making a country great and prosperous' are to be found here—'a fertile soil and easy communication for men and commodities from one place to another'. If the Government had done its duty in preserving the waterways, this would have been true; but now what is the state of things?

To begin with the Sharasatti khal, flowing from the Jellinghee. This was formerly a fine river. An old man at Bhugwan told me that he remembers boats of large burden sailing by his village. At the present time the bed of the river from Maniknagar and onwards is under cultivation. The khal that remains as far as Maniknagar is getting smaller every year. Bhugwan was formerly a large and flourishing town. The records of its greatness remain in picturesque mounds and numerous mango groves. Its ruin is probably due to the loss of the river as a means of communication with other trade centres.

A little further north is the Sonador khal, leaving the Jellinghee at Trihatta. It is marked as a good-sized river, which no doubt it formerly was. Its present state may be known when I say that I rode through it near Trihatta at the end of last July without wetting the girths. The stream was about three yards wide.

Going further north we come to the Morgangree. This must have been a splendid river formerly. As I passed the place of its junction with the Jellinghee, I noticed that the bed of the river was under cultivation, and that a bund was made to prevent the rising waters of the Jellinghee from destroying the flourishing rice crops.

From the last point mentioned and onwards the condition of the Jellinghee itself claims a remark, because the river appeared to me to be in a dying state. The fine stream of water that flows past Krishnagar really comes down the Bhyrub of Moorshedabad. At the end of July the water in the Jellinghee above its junction with the Bhyrub of Moorshedabad was quite pure, showing that its junction with the Ganges had not been effected sufficiently to allow a strong current to flow in. About the first or second of August the water became discoloured. Unless something is done the northern part of the Jellinghee will be a 'Morgangree' before long.

We come next to the Bhyrub flowing through *the middle of your subdivision*. On the map it is marked as second only to such rivers as the Jellinghee. An old saying current among the people makes the Bhyrub to be the eldest and greatest of the five sister rivers—Bhyrub, Pudma (?), Jumna (?), Ganga and Jellinghee. Its glory has now departed. I could not detect any clearly defined bed at its supposed junction with the Jellinghee. For a long distance the upper part of its course is under cultivation. In going up the stream last September we pushed the boat through the weeds as far as Kultee. Above that place the river is ruined for traffic.

Coming down the east boundary of the subdivision on the Howlea or Matabhanga river we find two rivers mentioned on the map—*the Kujlah* and the Chantea. About them I can only say this,—that although I looked carefully for them, I saw no trace of their junction with the Matabhanga. The beds of both have been too well and too often cultivated. I passed by them in the month of August.

Thus the district which looks so fine on the map, has as regards its rivers, been ruined by the neglect of the Government and by the selfish avarice of the people. Saving in times of *extraordinary floods, not a drop of healthy Ganges water* can get into your district. The rivers now merely *receive the drainage of the country*.

Whether you consider the rivers as a means of sanitation, irrigation, or communication, the loss is simply inestimable. As for *sanitation*, without going into the wide question taken up by the *Fever Commission*, a Magistrate may easily ascertain the loss the country has sustained by turning teetotaler and spending most part of the year wandering through the villages. With regard to irrigation, it *was sad* in this *year of drought* to see the people pumping up the little water to be found here and there in the *rivers* and *khals* when we knew that by a little effort there would have been *streams* supplying water enough for thousands of acres. Then as to the rivers as a means of communication, I have been told that Nuddea is considered to be a decaying district. If we seek for the cause of its decay, I believe that, as far as the Meherpur subdivision is concerned the chief, perhaps the *only reason* will be found in its isolation from the centres of trade by the drying up of its rivers.

246. There is a special system of land settlement in the district called the *utbandi*. *Utbandi* is applied to land held for a year, rather for a season only. The general custom is for the husbandman to get verbal permission to

cultivate a certain amount of land at a particular place at a rate agreed upon. While his crop is on the ground the land is measured and the rent is assessed on it. A large proportion of the cultivated area of the Nadia district is let out in *utbandi*, but it is difficult to say whether there is any decrease or increase of this tenure. The land agent of the largest zemindar in the district in 1901 said that the *utbandi* system was on the decrease; but he stood alone among other opinions to the contrary. In estates containing not considerable quantity of *izara* or leased lands *utbandi* tenures were undoubtedly on the increase. On estates where the *utbandi* cultivation shows a slight tendency to decrease, it results rather from the desire of the cultivators to hold their lands by leases than from a wish on the part of the landlord to discontinue the *utbandi* system. The large number of *utbandi* tenures in Nadia district is attributed to the breaking up of other more stable tenures, by the famine of 1865-66, and by the epidemic which prevailed in the district from 1861 to 1868. As a general rule, throughout the district the rate for *jama* or regularly settled lands is about half that of *utbandi*. *Utbandi* rates are charged according to the quantity of land actually under cultivation, and are higher than the *jama* or leasehold rates which are paid whether the land is cultivated or not. J. M. Pringle and A. H. Kemm in their Settlement Report of Nadia published in 1928 came down rather heavily on the evil effects of the *utbandi* system, and summarised them under four heads: (1) it put a premium on dishonesty by encouraging the ryot and the cutchery staff to cheat the landlord and the poorer or more scrupulous tenant; (2) it put a discount on enterprise, by taxing the cultivation of more valuable crops and giving no security of tenure; (3) it often left the ryot in a perpetual state of uncertainty of his true liability; so that even if he knew what his rights were, he would have difficulty in proving them; and (4) before the settlement operation the landlords did not recognise the *utbandi* tenant however long or continuously he might be cultivating as a tenant at will.

247. The following account of the condition of the district should thus be read with reference to the above context. During 1891-1901 conditions were not favourable to the growth of the population. Fever was prevalent in the south of the district, especially in Krishnagar town and in the old jungle-smothered villages of the Ranaghat subdivision. Cholera also was very prevalent, especially in 1891, 1892 and 1896. The only two healthy years of the decade were 1897 and 1898. The seasons were on the whole unfavourable to the crops, especially those of 1895 and 1896, in which years the early rice crop was little more than a half and a third, respectively, of the normal outturn. The winter rice suffered even more, yielding less than half of an average crop in 1895 and barely a seventh in 1896. Distress was severe throughout the district and deepened into famine in the tracts where late rice was the staple crop. The relief afforded by Government was eminently successful in preventing loss of life, and the deaths reported in the years 1896, 1897, and 1898 were less numerous by nearly 50 per cent. than those of the preceding triennium.

248. This decade taught a lesson which went unheeded. Krishnaganj the easternmost police station of the Sadar subdivision and Hanskhali of the Ranaghat subdivision below it showed the greatest increase of any in the district in 1891-1901. These police stations lie in the hollow across which the floods of the Bhagirathi sweep whenever the great Lalitakuri embankment in the Murshidabad district gives way, and they suffered severely in the floods of 1885 and 1890. The reaction was immediate. These two police stations showed the greatest percentage increase for the district in the 1901 census on the 1891 population. In 1891 Krishnaganj had recorded a decrease of 0·1 and

Hanskhali a decrease of 17·6 per cent. on their 1881 population: in 1901 the former showed an increase of 15·4 per cent., and the latter an increase of 14·5 per cent. on the 1891 population. In 1901-11 Krishnaganj again relapsed to a decrease of 5·1 per cent. and Hanskhali increased only by 5·1 per cent. Nothing could be more instructive of the cleansing, invigorating and beneficent effects of the flushing and drainage caused by this fortuitous flood in a decaying area.

249. Conditions between 1901 and 1911 were very unfavourable, the only healthy years being 1904, 1909, and 1910. Not only was fever generally prevalent, but there were constant epidemics of cholera from 1902 to 1908, the death rate from cholera in those seven years averaging over 4 per mille and as high as 7 per mille in 1907. There was, moreover, scarcity in 1908, when conditions approached a famine, though it was not found necessary to declare famine under the Famine Code. The rainfall of 1905, though in excess of the normal, was badly distributed. Next year it was below the average and was again unequally distributed, while in 1907 it was still more deficient, there being an almost complete failure of the monsoon in September and October. The distress which ensued in 1908 affected the north-east of the district. This decade, however, saw the opening of the Ranaghat-Murshidabad line in 1905, while the Santipur-Krishnagar Light railway had opened in 1899. The influenza epidemic was responsible for great loss of life in 1918-19. There was a flood in 1912. During 1921-31, a filtered water supply was installed in Krishnagar which improved the health of the town and attracted middle class residents from rural areas to settle there particularly for the education of their children. Nabadwip grew in importance as a sacred place of the Hindus, whilst the village of Mayapur on the east of the Bhagirathi developed into a large settlement. The Churni Bridge to Santipur railway opened in 1925 and the Krishnagar-Nabadwipdham Light railway opened in 1926. There was acute scarcity in 1927. The period 1931-41 saw short periods of scarcity and distress in 1940. In 1935 there was a heavy flood followed by continued drought and distress. In 1938 there was a flood of moderate intensity and in 1939 a devastating flood which caused extensive damage. During 1941-51 the cyclone of 1942 caused modest damage, but the famine and epidemic of 1943-44 took a heavy toll; the Partition of the district came in 1947 and quite a large scale virtual exchange of population took place between 1948 and 1951. There was a period of severe distress in 1951 caused by failure of crops. The last ten years have therefore been responsible for large changes in the district.

STATEMENT I.73

Percentage of age groups and of married women (15-40) to total population and of children (0-5) to married women (15-40) in Nadia, 1901-51

Year	Percentage of persons, males and females to total population						Percentage of married women (15-40) to total population	Percentage of children (0-5) to total married women (15-40)
	Age group 0-15			Age group 15-60				
	P	M	F	P	M	F		
1	2	3	4	5	6	7	8	9
1901 . . .	40·1	42·1	37·9	54·2	53·1	55·5	15·4	89·6
1911 . . .	38·6	40·4	36·7	56·1	55·0	57·3	16·1	87·6
1921 . . .	37·2	38·5	35·8	58·2	57·6	58·9	15·8	72·2
1931 . . .	38·5	39·4	37·6	57·8	57·3	58·3	16·2	86·7
1941 . . .	39·2	39·0	39·3	56·6	57·0	56·2	15·9	88·2
1951 . .	38·1	40·5	35·6	57·9	56·2	59·6	16·9	87·4

250. The statement is remarkable for West Bengal for the very high proportion of the young population and the proportionately low proportion of the adult population. It can point to one thing: that a great deal of the adult population die comparatively young and as such both the birth and death rates are higher than most other districts. The statement also shows the low vitality of girls and women and the low proportion of married women. The influenza epidemic left a deep scar in 1921 as will appear from column 9.

STATEMENT I.74

Immigration and emigration in Nadia from and outside the State, 1891-1951

	1951	1941	1931	1921	1911	1901	1891
Actual population . . .	1,144,924	840,303	721,907	711,706	775,986	773,202	773,016
Immigration	464,462	10,573	6,009	7,389	8,575	5,205	4,933
Emigration	5,763	3,441	2,886	3,000	3,000	1,197	4,300
Natural population . . .	686,225	833,171	718,784	707,317	770,411	769,194	772,383
Percentage variation . . .	—17·6	+15·9	+1·6	—8·2	+0·2	—0·4	..

251. Immigrants for 1951 include 426,907 Displaced persons, so that immigration from outside of the State amounts to 37,555 which is about 3½ times of 1941. This is because of the new importance the district has acquired after the Partition. Besides work on a number of new roads, town sites, and other construction works are proceeding apace.

STATEMENT I.75

Migration between Nadia and other districts of Bengal in 1891-1921 and West Bengal in 1951

Year	Immigration				Emigration			
	From contiguous districts		From other districts		To contiguous districts		To other districts	
	M	F	M	F	M	F	M	F
1891 . . .	23,388	29,928	4,144	4,992	54,932	45,810	16,848	6,492
1901 . . .	19,555	24,678	6,611	3,112	45,617	40,560	23,948	11,030
1911 . . .	20,000	29,000	3,000	3,000	47,000	46,000	23,000	13,000
1921 . . .	16,000	23,000	5,000	3,000	36,000	37,000	18,000	12,000
1951 . . .	10,625	18,333	8,333	6,296	16,293	21,130	17,314	11,306

252. The above statement for 1891-1921 is unadjusted for the partitioned area of the district falling in West Bengal. The portion that has gone to East Bengal being more fertile and alluvial, it is likely that emigration should have taken place rather from the infertile and malarious tracts of the West Bengal portion than from other tracts. On the other hand, immigration is more likely to have taken place into the portion now in East Bengal than into the portion now in West Bengal. The evenness of emigrating males and females in the statement suggests that large numbers of families must have emigrated entire to escape annihilation. On the other hand immigration from contiguous districts sugests importation of brides, and immigration from other districts suggests periodic immigration of families on business or service. But what hits the eye at once is the irrefutable conclusion that the productivity of the soil diminished at the hands of a fever-ridden population and drove away large numbers of agriculturists to other districts.

Murshidabad

253. The district may be divided into two zones: one healthy, the other

unhealthy. The healthy zone consists of the area west of the Bhagirathi and Ganges well drained by the tributaries of the Bhagirathi debouching from the Santal Parganas hills. The unhealthy zone is on the east of the Bhagirathi and consists of swamps and water-logged areas formed by the decaying beds of the Gobra Nullah, the Bhairab, the Sialmari and the Jalangi. The Kalantar in the south-eastern corner of the district, north of the bed of the Jalangi is a great swampy basin which has a rich but damp soil. Both the Gobra Nullah, the Bhairab and the Sialmari are choked up streams during the greater part of the year and acquire a sluggish current during the height of the monsoon. The Gobra Nullah is a channel running from the Bhagirathi to the Jalangi at Bali-Tungi, a distance of about 50 miles. It was probably originally an effluent of the Bhagirathi, and it is, in fact, the natural drainage channel for the country east of that river. The action of nature, however, has been interfered with by the construction of a marginal embankment along the left bank of the Bhagirathi, called the Lalitākuri embankment, which extends from Jiaganj to Bhagwangola *via* Kalukhali and has cut off its connexion with that river. Its offtake being closed, it receives only local drainage water south of the embankment. It has silted up in its lower reaches, but still has a good deal of water in the portion lying to the east of the Sadar subdivision; farther north, in the Lalbagh subdivision, it is much narrower and in many places is merely a marshy depression.

254. An inquiry regarding the relative healthiness and unhealthiness of different parts of the district was made by the Bengal Drainage Committee in 1906-07, and the conclusions at which it arrived were that: "(1) The most malarious thanas are Bhagwangola (which included Lalgola and Raninagar), Jiaganj, Murshidabad, Berhampur town, Hariharpara, Domkal and perhaps, Jalangi; and (2) the least malarious areas are comprised in the whole of the Kandi Subdivision and the thanas of Farakka, Samserganj, Suti, Raghunathganj and Sagardighi." E. A. Gait in his Census Report of 1901 made the following mild comment: "The propriety of maintaining all these embankments has often been called in question. The land that would otherwise be flooded is thereby deprived of its supply of fertilising silt, and the river, being confined to its bed, deposits its silt there, and thus gradually raises itself above the level of the surrounding country." But in the records of the Fever Commission of the Eighties, and in the Records Relating to the Nadia Rivers, condemnations, supported by weighty argument, are not lacking against action that sought to change the regime of the rivers. There are many interesting letters and reports advocating the pulling down of the Lalitakuri embankments, but the following note by Raja Degumbar Mitter in 1864 describing the depopulation of Berhampur Town and Kashimbazar will serve the purpose of the point sought to be made out:

Statement by Baboo Degumbar Mitter relative to the epidemic fever at Cossim Bazar and the neighbouring villages (1864)

Chowkhally, Bhatpara, Cossim Bazar, Kalkapore, Bamunghatta, and Furreshdanga were situated on a curve of the river Hooghly until a straight cut was made some sixty years ago, since forming the chord of the curve, thus changing the course of the river and throwing those places inland. This engineering operation was closely followed by the breaking out of an epidemic in all those places which, in its virulence and mortality, is unparalleled by any pestilential visitation in Bengal, saving perhaps that which depopulated Gour. [It is highly probable that the long continued pestilence which necessitated the removal of the seat of Government from Gour to Tanra was caused by interruption in the drainage of the city. The heavy embankment on the margin of the lake or bheel on its eastern extremity, while guarding the city from inundation, must have effectually shut out the drainage in its flow into the lake.] During its rage cremation or burial in due form was found impracticable, and the dead are said to have been carried in cartloads to be disposed of any how; and thus the city of Cossim Bazar, once noted for its commercial importance, the extent and magnitude of which is said to have called into existence upwards of a hundred shroffs or banking firms to meet the monetary requirements of the same, was reduced, within the short space of five years, to almost a deserted waste.

This fever continues there to the present time, showing that its causes are still in active operation. In other respects Cossim Bazar does not at all differ from any healthy town in Bengal. Its waters, vegetation, houses, and the mode of life of its inhabitants are exactly alike; but no man sojourning there even for a day can help being struck with the extreme dampness which is felt even during the hottest months of the year. This dampness can only arise from excessive moisture in the sub-soil, owing to the disturbance in the drainage of the place, occasioned, most probably, by the diversion in the course of the river, added perhaps by a number of roads running transversely to the direction of the drainage. How caused it is not easy at this distance of time correctly to trace, and perhaps immaterial to our present enquiry. Enough that the place is extremely damp. This is undesirable, and I think it is likewise undesirable that the extreme dampness is owing to an excess of moisture in the soil.

255. Two systems of land settlement, detrimental to good cultivation obtain in the district. In the south of the district (the Kalantar area) the *utbandi* tenure of Nadia is to be found, being not uncommonly known under the expressive name of *fasli jama*. The peculiarity of this tenure consists in the circumstances that the cultivator only pays rent for the quantity of land that he may happen to have cultivated during the year and that the amount of rent is regulated by the nature of the crop. The rent is paid in kind and is determined by the actual amount of the produce. These tenures are actually created for short terms and are then renewed. The other is a considerable class of labourers who neither own nor rent land. It is chiefly composed of Santals and others of aboriginal tribes from the north-western frontier of the district. They are paid money wages in the majority of cases, and always in the sowing season; but at harvest time they receive a certain share of the crop. When so remunerated they are called *Krishans*. The *Krishans* though receiving a portion of the produce, supply their manual labour only, and do not contribute in furnishing either the cattle or any portion of the seed, nor have they any interest whatever in the land. They are very carefully distinguished from the *bargaits* or *bhag* holders who abound in every part of the district. These *bargaits* form a special class of the population being not properly labourers, nor yet cultivators of their own fields. The conditions of their holding are that they retain a fixed share of the produce which is usually half, and supply both seed and cattle.

256. The district did not fare well at all during 1872-1921 as statement I.76 will show. Increases generally happened in those police stations which according to the Drainage Committee of 1906-07 were healthy and there were decreases in most police stations which the Committee declared as bad. Bharatpur police station in Kandi subdivision experienced a very small increase during these fifty years: it is swampy and contains part of the Hijal *bil* formed at the confluence of the Dwarka and Mor. The district as a whole increased by as little as 0·8 per cent. on its 1872 population in 50 years. During 1901-51 it increased by 29·7 per cent. on its 1901 population and in 1921-51 by 40·2 per cent. on its 1921 population. The influenza epidemic in 1918-19 took a heavy toll but from 1921 onwards the population recorded heavy increases.

257. The decade 1901-11 was one of chequered prosperity. In 1904 there were several floods by which a considerable area was submerged. Next year there was an epidemic of cholera, which caused over 8,000 deaths, and this was followed by an epidemic of smallpox in 1907. In that year too the Lalitakuri embankment in the Lalbagh subdivision gave way, and there was a partial failure of the winter crop. Taking the average of the whole decade, however, crops were almost normal, and a demand for labour was created by the construction of three new railway lines, *viz.*, the Ranaghat-Murshidabad-

Krishnapur branch of the Eastern Bengal State Railway in 1905, and the Barharwa-Azimganj-Katwa line (opened in 1913). The effect of these lines being opened was apparent in an increasing exodus of labourers during the cold weather. The feverish police stations east of the Bhagirathi suffered from decreases in population. During 1911-21 the district suffered heavily from the depopulation caused by the influenza epidemic and the increase in 1921-31 was very largely due to the ordinary recuperation generally noticed when a calamity has reduced the population. Specific explanations are available only in Domkal and Jalangi police stations which owed their increase to a healthy climate and the settlement of immigrants in Jalangi police station as a result of erosion in the river Padma elsewhere. In Beldanga the increase was partly due to immigration of labourers on the railway and in the brickfields. During 1931-41 the health situation steadily improved. In 1941-51 the famine and epidemics of 1943-44 did not inflict much damage. The partition in 1947 did not entail any loss in territory but the district experienced heavy immigration of Displaced persons and a small exodus of Muslims.

STATEMENT I.77

Percentage of age groups and of married women (15-40) to total population and of children (0-5) to married women (15-40) in Murshidabad, 1901-51

Year	Percentage of persons, males and females to total population						Percentage of married women (15-40) to total population	Percentage of children(0-5) to total married women (15-40)
	Age group 0-15			Age group 15-60				
	P	M	F	P	M	F		
1	2	3	4	5	6	7	8	9
1901	40·7	42·9	38·5	53·6	52·5	54·8	15·5	93·2
1911	40·4	42·0	38·8	54·4	53·6	55·2	16·0	90·7
1921	38·5	40·1	36·9	57·0	56·0	57·9	16·4	75·6
1931	40·9	42·0	39·6	55·4	54·6	56·3	16·6	96·8
1941	41·1	41·6	40·7	54·6	54·5	54·6	16·1	90·2
1951	41·4	41·8	40·9	55·0	54·5	55·6	17·0	97·7

258. Murshidabad introduces us into a trio of districts—Murshidabad, Malda, and West Dinajpur—which are remarkable for their very high proportion of the young population, the still higher proportion of boys 0-15, and the low proportion of girls and women in both age groups. The population is very young which points to the conclusion of high birth and death rates. One would have understood if this characteristic were available only for the year 1951 but the uniformity of the ratios throughout the fifty-year period in this district and in Malda and West Dinajpur leaves one guessing. There are no special reasons why the population should remain so young,—reasons that might be peculiar to these districts and no other. The appalling effects of the influenza epidemic are reflected in column 9 for 1921, and there may have been bogus inflations in 1941 in the category of married women as suggested by the comparatively low figure in column 9 for that year. The proportion of married women (15-40) is however normal for West Bengal.

STATEMENT I.78

Immigration and emigration in Murshidabad from and outside the State, 1891-1951

	1951	1941	1931	1921	1911	1901	1891
Actual population	1,715,759	1,640,530	1,370,677	1,224,181	1,345,073	1,322,486	1,250,946
Immigration	78,233	24,500	22,263	22,252	29,755	27,777	24,154
Emigration	19,347	11,551	9,687	12,000	17,000	754	8,841
Natural population	1,656,873	1,627,581	1,358,101	1,213,929	1,332,318	1,295,463	1,235,633
Percentage variation	+1·8	+19·8	+11·9	—8·9	+2·8	+4·8	..

259. The figure of immigrants for 1951 includes 58,729 Displaced persons, which reduces the figure for immigrants from outside the State to 19,504 or less than the lowest for previous decades. The figure for emigration excludes those who may have migrated to East Bengal. Immigration to the western parts of the district from the Santal Parganas has been stayed, and the native-born children of immigrants have taken the places of their fathers. The proportion between immigrants and emigrants has changed in a manner that is significant of the deterioration of the reproductive capacity of the soil at the hands of a fever-stricken agricultural population. The figure of emigration of 1951 does not include Muslims who have migrated to East Bengal. According to the West Bengal Government 5,970 Muslims migrated all of whom later returned.

STATEMENT I.79

Migration between Murshidabad and other districts of Bengal in 1891-1921 and West Bengal in 1951

Year	Immigration				Emigration			
	From contiguous districts		From other districts		To contiguous districts		To other districts	
	M	F	M	F	M	F	M	F
1891 . . .	27,383	24,516	2,201	2,018	26,066	32,215	9,040	5,298
1901 . . .	21,549	29,332	9,104	4,221	30,183	34,497	7,912	5,350
1911 . . .	17,000	24,000	3,000	2,000	34,000	40,000	10,000	6,000
1921 . . .	13,000	18,000	3,000	2,000	35,000	40,000	10,000	6,000
1951 . . .	20,012	21,453	2,114	3,020	15,347	27,638	14,381	10,865

260. The figures for migration seems to suggest that Murshidabad suffers almost as severely as Nadia from the evils which have come about by the decay of the distributary river system from the Ganges, the consequent fall in the subsoil water-level and its concomitant disabilities. Emigrants from Murshidabad go in large numbers to Asansol subdivision as masons and workmen. To Birbhum and Nadia, Murshidabad exports a large number of brides. Nadia and Murshidabad seem to enter into a great number of marriages.

Malda

261. Statement I.80 for Malda shows steady increase from decade to decade except during the influenza epidemic of 1918-19 in the decade ending 1921. Between 1872 and 1881 malarial fever prevailed in several police stations and brought about decreases in the population, but during the next ten years the district prospered greatly. The opening out of the Barind by Santals, which had barely commenced in 1876, made great strides, especially in Gajol and old Malda. There was also a great growth in Kaliachak, Manikchak, and Ratua on account of immigration of Shershabadias from Farakka, Samserganj and Suti police stations of Murshidabad. Between 1891 and 1901 the health of the district was unsatisfactory. Cholera was rife in several years, and in 1900 there was a specially bad outbreak in Englishbazar. During 1901-11 the district made steady progress. The crops were good except in 1908-09, when short rainfall led to a failure of the winter rice crop—the principal crop in the Barind area—and some distress was experienced which was remedied by the issue of loans and the opening of relief works. In the rest of the district, however, good *bhadoi* and *rabi* crops were obtained and, owing to the high prices of food grains, the condition of the people was, if anything, more prosperous than in other years. The scarcity had no deterrent effect on the growth of population. The most important feature in the economic history of the

decade was the opening of the Katihar-Godagari railway in 1909, which traversed the district from north-west to south-east. The railway did much to develop the district. At every railway station a bazar sprang up, and the cultivator profited largely by the competition of traders, in jute, rice and other country produce. Growers of the mango fruit were now able to reach markets at a greater distance and command better prices. Another result was to facilitate immigration into the thinly populated areas in the east of the district. Immigrants consisted chiefly of Santals, who reclaimed waste lands in the Barind, and Shershabadia Muslims who cultivated the new alluvial formations in the *diara* tract, besides Bihari settlers who came into the northern police stations of the district and settled in Harishchandrapur, Ratua, and Manikchak. During 1911-21 the district suffered from a serious setback after the rapid advance in the decade before. The cause was mainly malaria which was all over the district, but particularly so round the headquarters station where, on more than one occasion, it assumed epidemic form. During 1921-31 the silk industry declined and with it the rate of increase in Kaliachak. The decline of the lac industry in Ratua and Manikchak caused a decline in the growth of population which was concealed by the Ganges moving over to Santal Parganas and throwing up *chars* on the Malda side which attracted immigrants from Murshidabad. The whole of the Barind area suffered from decreasing fertility and severe scarcity in 1925-26 and resisted immigration of Santals. There was a large growth of mango gardens which increasingly replaced lac and mulberry fields. During 1931-41 there was a bad flood in 1938, which was the only event of importance. During 1941-51 the district suffered more from epidemics in 1944 than from the famine in 1943; the partition brought about some voluntary migration in either direction; there was a bad flood in 1948, and in 1950-51 there was a big spate of immigration of Displaced persons from East Bengal.

STATEMENT I.81

Percentage of age groups and of married women (15-40) to total population and of children (0-5) to married women (15-40) in Malda, 1901-51

Year	Percentage of persons, males and females to total population						Percentage of married women (15-40) to total population	Percentage of children (0-5) to total married women (15-40)
	Age group 0-15			Age group 15-60				
	P	M	F	P	M	F		
1	2	3	4	5	6	7	8	9
1901 . . .	42·0	43·2	40·7	53·1	52·6	53·8	15·9	95·4
1911 . . .	43·7	44·7	42·7	51·7	51·3	52·1	15·9	102·5
1921 . . .	41·6	42·7	40·6	54·3	53·6	54·9	16·3	87·7
1931 . . .	43·0	44·0	42·1	53·8	53·0	54·6	16·6	100·0
1941 . . .	42·1	42·6	41·6	54·2	53·7	54·8	17·3	91·3
1951 . . .	42·0	41·9	42·0	54·1	54·3	53·9	17·0	101·8

262. The statement shows how much younger the population of Malda has been than even that of Murshidabad, and the lower proportion of girls to boys between 0 and 15. But it shows a welcome feature in the greater specific ratio of adult women to that of adult men. Column 9 shows the grievous effect of the influenza epidemic in 1921, and the effect of bogus inflations among married women in 1941. It also illustrates the comparatively large size of the unitary family: on three occasions the proportion of children aged 0-5 exceeded the number of married women 15-40.

STATEMENT I.82

Immigration and emigration in Malda from and outside the State, 1891-1951

—	1951	1941	1931	1921	1911	1901	1891
Actual population	937,580	844,315	720,440	686,174	698,547	603,649	547,290
Immigration	82,507	22,952	30,464	43,910	55,427	16,741	18,733
Emigration	10,700	6,388	5,358	8,000	13,000	113	232
Natural population . . .	865,773	827,751	695,334	650,264	656,120	587,021	528,789
Percentage variation . . .	+4·6	+19·0	+6·9	—0·9	+11·8	+11·0	..

263. The figure for immigrants of 1951 includes 60,198 Displaced persons which reduces the figure for immigrants from outside the State to 22,309 which is smaller than previous years as far back as 1911 indicating that the availability of land and its productivity are approaching their saturation point. The progress of emigration also bears out this indication. According to the West Bengal Government 15,000 Muslims migrated to East Bengal after the partition, of whom 4,000 later returned. These figures are not included in the above statement.

STATEMENT I.83

Migration between Malda and other districts of Bengal in 1891-1921 and West Bengal in 1951

Year	Immigration				Emigration			
	From contiguous districts		From other districts		To contiguous districts		To other districts	
	M	F	M	F	M	F	M	F
1891 . . .	28,247	23,164	3,616	3,204	15,060	15,091	1,478	613
1901 . . .	33,995	33,093	14,927	7,428	11,887	12,779	1,244	688
1911 . . .	17,000	18,000	3,000	1,000	11,000	10,000	1,000	1,000
1921 . . .	18,000	17,000	2,000	1,000	11,000	9,000	1,000	1,000
1951 . . .	6,626	3,489	3,810	1,363	15,639	7,818	5,207	2,320

264. Figures up to 1921 in this statement are unadjusted for the partitioned district. The decreasing figures indicate a diminishing stream of immigration as lands are employed to capacity. The evenness of males and females in earlier decades shows that whole families of immigrants moved in as settlers on the soil. On the other hand the unequal ratios of males and females both among immigrants and emigrants in 1951 suggest temporary or periodic migration on business and service. Malda has extensive connexions with only two districts: Murshidabad and West Dinajpur.

West Dinajpur

265. Statement I.84 shows the growth of population in West Dinajpur district between 1872 and 1951. The district registered an increase of only 21·9 per cent. on its 1872 population in fifty years 1872-1921. It made far more rapid progress between 1921 and 1951: a percentage growth in 30 years of 46·9 on the 1921 population. As with all other districts the growth of this 30-year period expressed as a percentage of the 1921 population is slightly misleading as the influenza epidemic and other calamities of 1911-21 lowered the 1921 population a little more than what might be normally expected. Nevertheless the growth between 1901 and 1951 was quite satisfactory, being 57·8 per cent. on the 1901 population. The district suffered from depletion only in one decade: 1911-21; but in 1872-81 it suffered badly from the effects of the Burdwan Fever, and

in 1911-21 from the influenza epidemic. Other decades have been comparatively congenial to growth. Only two police stations, both jungly and feverish and formerly seats of royal power, suffered from depopulation during 1872-1921 and these were Hemtabad and Raiganj. Between 1921 and 1951 progress was heavy in all police stations of the Sadar subdivision and in Raiganj of Raiganj subdivision. This has been mainly due to an influx of 115,510 Displaced persons from East Bengal between 1947 and 1951.

266. The district has been unhealthy for the greater part of last century and in 1878 a Committee was appointed to inquire into the causes. But nothing very much came of it. The census of 1881 showed a gain of barely 1·3 per cent. which was more than accounted for by the greater accuracy of the enumeration. The district continued to be unhealthy for some years longer, but it then took a turn for the better, and in 1891 there was an increase of 4 per cent., of which, however, a considerable part was due to immigration. Between 1891 and 1901 the health of the district continued to improve but was still far from satisfactory. Malarial fevers were still very prevalent. The crops were good on the whole. There were partial failures in 1891 and 1897, and the scarcity in the latter year was aggravated by the high prices which prevailed throughout India. The good harvests of subsequent seasons restored the prosperity of the cultivators but they were wanting in industry. The Raiganj-Dinajpur line was opened in 1888 and the Raiganj-Katihar line in 1889. During 1901-11 conditions were generally favourable. There was some scarcity during 1908 and 1909 in Raiganj. All distress disappeared with the bumper crops next year, and it does not seem to have affected the growth of population. During 1911-21 the district suffered heavily from the influenza epidemic. The population contains a large proportion of tribes and these as elsewhere seem to have suffered more severely than other races. During 1921-31 the immigration of Santals, Shershabadia Muslims and other colonists account for the increase in Kumarganj, Gangarampur, Bansihari, Kaliaganj, Hemtabad and Itahar. General health also improved. During 1931-41 Hili gained importance as a centre of rice and paddy while other areas steadily gained in population. During 1941-51 the district suffered both from the famine of 1943 and epidemics of 1944. It acquired its present size and importance in the partition of 1947. Between 1947 and 1951 there was some emigration of Muslims to East Bengal. According to West Bengal Government the number of emigrating Muslims amounted to 14,000 of whom 12,375 later returned. The influx of Displaced persons from East Bengal amounted to 115,510, quite the largest for any district barring 24-Parganas, Calcutta and Nadia.

STATEMENT I.85

Percentage of age groups and of married women (15-40) to total population and of children (0-5) to married women (15-40) in West Dinajpur, 1901-51

Year	Percentage of persons, males and females to total population						Percentage of married women (15-40) to total population	Percentage of children (0-5) to total married women (15-40)
	Age group 0-15			Age group 15-60				
	P	M	F	P	M	F		
1	2	3	4	5	6	7	8	9
1901 . . .	41·7	41·3	42·3	54·6	55·0	54·0	16·9	86·9
1911 . . .	42·6	41·7	43·7	54·1	54·8	53·1	16·2	93·9
1921 . . .	41·4	40·4	42·3	55·4	56·1	54·8	17·2	79·7
1931 . . .	42·0	41·1	43·0	55·5	56·1	54·9	17·6	91.6
1941 . . .	39·1	38·1	40·2	57·7	58·4	56·9	17·9	77·2
1951 . . .	40·7	39·5	42·1	56·8	57·7	55·7	17·2	98·1

267. The statement shows the extent to which West Dinajpur has a young population and a comparatively small adult population of working age. It also illustrates how large specific mortality is among adult women. In every decade specific mortality among females has been higher than among males. The proportion of married women to total population is slightly high compared to other districts. The birth and death rates are obviously high. The size of the unitary family oscillates between wide limits. In 1921 the influenza epidemic was particularly harsh on mothers aged 15-40. There seems to have been a considerable number of bogus inflations in the 1941 count among married women. The figure in column 9 for 1951 is higher than any previous year possibly on account of the preponderance of young children among the immigrant Displaced population and the number of families left behind by Muslims who have emigrated to East Bengal in search of a living.

STATEMENT I.86

Immigration and emigration in West Dinajpur from and outside the State, 1891-1951

	1951	1941	1931	1921	1911	1901	1891
Actual population . . .	720,573	583,484	523,977	490,434	509,557	456,501	423,305
Immigration	153,251	25,539	22,783	32,310	43,292	28,736	15,058
Emigration	4,119	2,459	2,062	2,000	2,000	114	4,102
Natural population . . .	571,441	560,404	503,256	460,124	468,265	427,879	412,349
Percentage variation . . .	+2·0	+11·4	+9·4	—1·7	+9·4	+3·8	..

268. The figure for immigrants of 1951 includes a Displaced population of 115,510. Without this figure, the number of immigrants from the States of India and outside amounts to 37,741. The excess from the normal of the previous three decades is explained by the new importance the area has acquired as a border district, and the immigration of labourers engaged in road building and other construction works. Emigrants have remained at more or less a constant level. The figure for 1951 does not include persons who have migrated to East Bengal. The statement shows that the progress of the natural population has been uncertain and far from steady.

STATEMENT I.87

Migration between West Dinajpur and other districts of Bengal in 1891-1921 and West Bengal in 1951

Year	Immigration				Emigration			
	From contiguous districts		From other districts		To contiguous districts		To other districts	
	M	F	M	F	M	F	M	F
1891 . . .	22,670	18,819	9.308	5,894	10,052	9,931	1,271	1,130
1901 . . .	13,901	13,319	60,243	34,871	6,784	7,799	1,416	802
1911 . . .	19,000	16,000	12,000	6,000	7,000	9,000	1,000	1,000
1921 . . .	12,000	13,000	10,000	7,000	8,000	10,000	1,000	1,000
1951 . . .	3,999	6,383	1,512	2,245	3,540	1,097	3,560	2,982

269. Figures for 1891-1921 in this statement have not been adjusted for the present jurisdiction of the district. But they indicate the volume of immigration in the early years of colonisers like Santals, Mundas, Oraons, Paliyas and Rajbansis and Shershabadia Muslims in the great sparsely populated paddy tracts. They indicate how colonisers moved into the district with practically their entire families. Those who emigrated also moved *en bloc* being

perhaps sons and daughters of immigrants of an earlier generation or the immigrants themselves. 1951 however suggests a different pattern of migration. The district seems to have contracted marriages in other districts to a greater extent than previously and imported brides, while more men seem to emigrate to other districts in search of livelihood.

Jalpaiguri

270. Jalpaiguri, and to a smaller extent Darjeeling, have registered the most impressive increases in population since 1872, and Statement I.88 is a record which surpasses even the most spectacular increases in Howrah, 24-Parganas or Calcutta. During 1872-1921 the population of the district increased by 244·2 per cent., which for individual police stations mounted higher and higher as one went farther east until in Kalchini, Alipur Duars and Kumargram the increment amounted to the fantastic figure of 1,042.3 per cent. The centrally situated police stations increased by as much as 300 to 700 per cent. Between 1901 and 1951 the increase was a little less stupefying but very impressive, nevertheless, being as much as 298·3 per cent. in Kalchini. The over all increase for the district was 67·8 per cent. The growth between 1921 and 1951 was the least, amounting roughly to a little over 1·0 per cent. per anuum, indicating that immigration of labour in the tea gardens and of cultivators in the forests and agricultural spaces had already reached a very substantial level in 1921. It is easy to appreciate the great change that has come over the population of the district in the course of eighty years and the polyglot character of the immigrant population.

271. Jalpaiguri comprises two distinct tracts, *viz.*, (1) the regulation portion, formerly part of a subdivision of Rangpur, which includes all the country that lies west of the Tista ; (2) the Western Duars taken from Bhutan after the War of 1864-65 or all the country east of the Tista. The first or regulation tract has been long settled, and except in the north, it had a fairly dense population. The second or non-regulation area east of the Tista, on the other hand, was very sparsely populated when first acquired. The former tract was decadent until very recently, while the latter is very progressive. The first tea garden was opened in 1874 and others followed so rapidly that in 1881 there were 47 tea estates with 5,637 acres under tea. In 1891 there were 79 gardens with 35,683 acres of tea, and in 1901, 235 gardens with 76,403 acres. Apart from the tea gardens, the settlement of land for ordinary cultivation progressed rapidly ; the rates of rent were very low, and cultivators were attracted not only from the police stations west of the Tista, but also from Rangpur and Cooch Behar. During 1891-1901 the settlement of lands in the Duars for ordinary cultivation continued to progress. The crops were good and the growing demands for labour met by extensive importation from other places. The Bengal Duars railway line commenced in 1893 connecting Domohoni to Dam Dim and Lataguri to Ramshai, and a workshop was opened in connexion with the former, employing nearly 1,000 workmen. There were no specially serious outbreaks of epidemic disease, but fever was always prevalent and in eight out of the ten years the district figured amongst six districts with the highest recorded mortality from fever in the State. During 1901-11 the central police stations filled up rapidly, and cultivation extended in Alipur Duars in every direction. There was a constant stream of immigration attracted by the fertility of the land and the lowness of the rents. The Dam Dim Odlabari-Bagrakot railway line opened in 1901-2 and the Mal-Chalsa-Chengmari-Dalgaon-Madarihat line in 1901-03. Between 1911 and 1921 the Chalsa-Matiali line was opened in 1918 and almost all that was not taken up for tea or remained

reserved forest was brought under cultivation. But the increase during 1911-21 was very much less than in the 20 years before. The reason was that the tea industry ever since 1898 did not flourish as it had done earlier. The birth rate ran comparatively high but the district being very malarious, the death rate was also very high and would be higher still but for the careful attention given by tea garden managers to the health of their labour. During 1921-31 the agricultural population suffered from distress caused by the very low price of tobacco. New tea gardens were opened in Sadar, Kumargram, Madarihat and Kalchini police stations Public health measures greatly improved during the decade. During 1931-41 Alipur Duars subdivision saw steady immigration and in 1931-33 several miles of railway line were extended from Domohoni to Barnesghat and elsewhere. The fall in agricultural prices hit the population towards the end of the decade but with the opening of the Far Eastern Front in 1942 Jalpaiguri and especially Alipur Duars subdivision sprang into sudden importance. A number of large air strips were built all over the Duars and Alipur Duars subdivision and the towns were practically rid of malaria by army efforts. The roads were improved and the tea industry prospered as never before. In the 1943 famine although the district of Jalpaiguri itself remained unaffected, it attracted distressed persons from Rangpur. There was a devastating flood in the Tista in June 1950 which completely submerged 56 mauzas in Maynaguri and Mal police stations and 3 wards of Jalpaiguri municipality. An area of about 30 square miles was affected on either bank of the river and although the loss of human lives was small, 4,135 families with a population of 17,779 were affected, 3,163 head of cattle were lost and 25,460 maunds of food grains were destroyed. Standing jute and paddy over about 1,154 acres were lost and 1,171 houses damaged. Large settlements of Displaced persons were made in Rajganj and Jalpaiguri; the most important being Phatapokhori midway on the road between Siliguri and Jalpaiguri. The district has seen a great deal of activity since 1947 on account of the new Assam Rail Link Project, the development of Alipur Duar town as a large railway centre, and several road building projects connecting Assam and the Duars.

272. The following statement illustrates the progress of the tea industry in Jalpaiguri district:

STATEMENT I.89

Statistics of tea in Jalpaiguri, 1874-1951

Year	No. of tea gardens	Total area in acres under tea	Approximate yield in lbs.	Average yield in lbs. per acre of mature plants	Number of labourers employed		
					Permanent	Temporary	Total
1874	1	..	..	..	..	..	..
1881	47	5,637	..	..	..	..	..
1891	79	35,683	..	..	..	..	..
1901	235	76,403	31,087,537	441	47,365	21,254	68,619
1911	191	90,859	48,820,637	583	56,693	18,622	75,315
1921	131	112,688	43,287,187	426	86,693	1,871	88,564
1931	151	132,074	66,447,715	534	112,591	4,262	116,853
1941	189	131,770	94,604,450	765	136,491	4,896	141,387
1951	158	134,473	137,194,660	1,020	..	..	176,196

Source: Administration of Bengal and Indian Tea Statistics. The population of labourers in 1951 is inserted from Union Table B III of 1951.

273. The statement shows several things. First, that soon after a tea estate has developed to a certain extent it is likely to be absorbed in a bigger limited company, so that although the acreage increases the number of separate tea estates is kept down to improve efficiency of organisation and economy of costs. Secondly, the average yield per acre, by a triumph of good management and organisation, has progressively increased. Thirdly, since 1931 there has been very little increase in the acreage under tea indicating that almost all exploitable land has already been utilised, and plantation is approaching maximum expansion. Fourthly, that employment in tea gardens is on the way to reaching a ceiling. Finally, the temporary employment has more and more given way to permanent tenures, but the uncertainty of the tea market since 1931 has made it profitable to keep a proportion of temporary labourers. Nevertheless the overwhelming majority of permanent labourers indicates a settled labour policy.

STATEMENT I.90

Percentage of age groups and of married women (15-40) to total population and of children (0-5) to married women (15-40) in Jalpaiguri, 1901-51

Year	Percentage of persons, males and females to total population						Percentage of married women (15-40) to total population	Percentage of children (0-5) to total married women (15-40)
	Age group 0-15			Age group 15-60				
	P	M	F	P	M	F		
1	2	3	4	5	6	7	8	9
1901 . . .	39·5	38·2	41·0	56·2	57·3	54·7	15·8	86·6
1911 . . .	39·6	37·8	41·8	56·4	57·8	54·6	16·2	87·6
1921 . . .	40·0	38·5	41·7	56·5	57·7	55·3	16·4	81·1
1931 . . .	39·5	37·7	41·6	57·8	59·5	55·8	16·6	91·4
1941 . . .	38·0	36·2	40·0	59·3	60·7	57·7	17·3	76·7
1951 . . .	39·8	37·0	43·2	57·7	60·0	54·9	16·0	98·0

274. The statement shows what a comparatively young population Jalpaiguri has in spite of the fact that it is more based on an industrial economy than a rural one. It seems to suggest that already in 1901 immigration of adult labourers had diminished and the district had come to have a settled labour population who were begetting their successors. The specific mortality among male children was higher than among girls, while in the adult population the tables were turned and it was women who suffered from a higher specific mortality. The proportion of the adult working population is certainly low for an industrial zone. The size of the unitary family shows an upward trend on account of continued improvement in health measures. Column 9 for 1921 shows the extent to which the influenza epidemic carried off the younger age group of 0-5, and the same column for 1941 indicates that there must have been a large number of bogus entries for married women in the 1941 count.

STATEMENT I.91

Immigration and emigration in Jalpaiguri from and outside the State, 1891-1951

	1951	1941	1931	1921	1911	1901	1891
Actual population	914,538	845,702	739,160	694,056	661,282	544,906	433,334
Immigration	278,842	156,765	158,757	163,024	152,174	95,899	44,329
Emigration	5,356	3,198	2,682	7,000	2,300	105	1,280
Natural population	641,052	692,135	583,085	538,032	511,408	449,112	390,285
Percentage variation . . .	—7·4	+18·7	+8·4	+5·2	+13·9	+15·1	..

275. The figure of immigrants for 1951 includes 98,572 Displaced persons. According to the West Bengal Government 50,000 Muslims migrated from this district to East Bengal during 1947-51 of whom 35,000 later returned. As Statement I.91 will show there has been far more immigration from outside the State,—from Chota Nagpur and the Santal Parganas—than from within Bengal. The steadiness of the figure of immigration suggests that the district has almost reached saturation point respecting employable labour, and also that the labour corps is periodically exchanged by a process of repatriation of an older generation and recruitment of a younger one. The district has never seen much of indentured adult male labour, as happened in Assam, because in every decade the even proportion of male and female immigrants indicates that the tea companies of the district were from the beginning set on a stable labour policy and on acquiring families of labourers instead of so many workers without attachment of family ties and therefore without a stake in their jobs.

STATEMENT I.92

Migration between Jalpaiguri and other districts of Bengal in 1891-1921 and West Bengal in 1951

Year	Immigration				Emigration			
	From contiguous districts		From other districts		To contiguous districts		To other districts	
	M	F	M	F	M	F	M	F
1891 . . .	30,920	27,835	12,431	7,641	8,343	10,076	120	95
1901 . . .	24,354	23,856	65,272	48,636	7,114	9,627	247	98
1911 . . .	18,000	15,000	15,000	10,000	7,000	10,000	300	100
1921 . . .	21,000	19,000	5,000	4,000	6,000	9,000	500	500
1951 . . .	8,069	7,308	6,302	4,668	3,051	1,986	3,103	2,025

276. While Statement I.91 mainly relates to migration in tea estates of the district, Statement I.92 reflects migration in the agricultural areas. The diminishing returns show how rapidly the agricultural spaces were filled up and the evenness of male and female immigrants shows that colonisers moved into the district in families rather than singly. The figures for 1951 are so small that they suggest casual or periodic migration on business or service and not with the intent of settling on the land as colonisers. They also suggest that immigrants in the past mostly came from districts which are now in East Pakistan. They also suggest visits by the progeny of old time settlers to their ancestral homes and other places.

Darjeeling

277. Writing in 1854 in his *Himalayan Journals* Joseph Hooker said that there were not a hundred inhabitants under British protection when Darjeeling was first transferred, but that, during the two years in which he witnessed its development, its progress resembled that of an Australian colony not only in the amount of building, but also in the accession of native families from the surrounding countries. He was referring to the hills portion of the district excluding Kalimpong, which was then part of Bhutan.

278. Astonishingly enough, as early as 1794 H. T. Colebrooke had pleaded for tea and coffee plantations in Bengal, predicting their success (see *Remarks on the Husbandry and Commerce of Bengal* reprinted as an Appendix in Part IC of this Report). The first trial of the tea plant at Darjeeling was made in 1841, according to A. Campbell, with a few seeds grown in Kumaon from China stock. It was quite successful, and the quality was approved by the Assam tea planter who visited Darjeeling in 1846, and made the first tea here. Although experiments continued to be made on the growth of the tea plant, and seed from Assam and Kumaon was

distributed gratuitously by Government, it was not till 1856 that the first plantation was started at Kurseong, and another near Darjeeling, by Captain Samler, who was also the first to try coffee. The success in both cases was complete and others followed in the same path. By 1861 on the eve of the International Exhibition in London of 1862, 22 tea estates had sprung up. They had received a total grant of 21,865 acres, of which 3,251 were under tea, and already, 4,303,000 tea plants had been planted, 42,600 lbs. of tea and 20,000 lbs. of coffee manufactured and 2,534 labourers employed. In 1871 the number of tea estates, public and private, was 62, with an area of 12,305 acres planted with tea. In 1881, the number of these estates had risen to 155, and the acreage under tea had advanced to 28,367 acres. In 1891 there were 177 registered gardens with 45,585 acres under tea and 242 square miles comprised in tea estates. From this time onwards tea estates were more and more organised under big limited concerns so that although the area under tea expanded the number of separate gardens decreased. The following statement shows the progress of tea in Darjeeling district between 1861 and 1951.

STATEMENT I.93

Statistics of tea in Darjeeling, 1861-1951

Year	No. of tea gardens	Total area in acres under tea	Approximate yield in lbs.	Average yield in lbs. per acre of mature plants	Number of labourers employed		
					Permanent	Temporary	Total
1	2	3	4	5	6	7	8
1861 . . .	22	3,251	42,600	..	..	..	2,534
1881 . . .	155	28,367	5,160,316	238	..	..	..
1891 . . .	177	45,585	10,910,487	277	..	..	..
1901 . . .	170	51,724	13,535,537	276	24,257	16,194	40,451
1911 . . .	156	51,488	14,250,615	284	26,510	13,051	39,561
1921 . . .	168	59,005	14,080,946	252	45,977	2,733	48,710
1931 . . .	169	61,178	20,496,481	345	61,572	2,093	63,665
1941 . . .	136	63,173	24,815,216	400	67,838	1,861	60,699
1951 . . .	138	62,580	29,283,499	468	..	..	69,590

Source: Administration of Bengal and *Indian Tea Statistics.*

279. The statement shows how rapidly tea gardens improved in yield per acre and total production. It indicates that the total number of labourers, unless the acreage under tea were vastly expanded, for which there is little scope, is likely to fluctuate between 65,000 and 75,000. It also shows how the total area under tea has been more or less constant since 1921, and how temporary labour has decreased as a result of which tea garden labour in Darjeeling has stabilised and, as bearing out an observation already made, settled in family patterns.

280. To return from this digression, Kalimpong was annexed from Bhutan in 1865 and in 1891 was a vast Government estate, consisting mainly of forests. In that year it contained only two tea gardens and two cinchona plantations, the remainder being divided in agricultural plots among settlers from Nepal, Sikkim and Bhutan, as well as amongst the original Lepcha inhabitants. While tea flourished in the hills, in the *terai* or plain at the foot of the hills ordinary cultivation was carried on by Rajbansis with an admixture of Muslims and other castes. Reclamation of land went

on steadily but even in 1891 about 45 per cent. of the land was uncultivated.

281. The census of 1872 was considered defective. There was an immense concealment of females in 1881. Many of them fled on the census night over the frontier into Nepal. Labourers absconded from tea gardens from panic and other causes. It was believed that the Census of 1891 for the first time took a satisfactory count. During 1891-1901 the hills were very healthy. On the other hand, the *terai* was notoriously malarious and mortality was very heavy. The Siliguri Darjeeling railway line was opened in 1880-81. The tea industry on which the growth of the district mainly depended, passed through a serious crisis. Prices fell greatly between 1896 and 1901 and many gardens were no longer able to work at a profit. A few gardens closed and others reduced their labour force, so that the increase due to extension of cultivation during the earlier years of the decade was to a great extent discounted by subsequent reduction of establishment. The increase of population was greatest in Kalimpong, where the waste land was rapidly brought under cultivation by new settlers, chiefly from Nepal. Already during 1901-11 the population showed a decline in the rate of increase. L. S. S. O'Malley in his Census Report of 1911 observed:

> The explanation is that there is only a limited area in which there is room for an increase in population. Over one-third of the district is covered by reserved forests, while the tea gardens extend over about one-seventh of its area. While they were being opened out and developed, labour poured in and a phenomenal growth of population resulted. Now all the land suitable for tea cultivation, within the area reserved for it, has been taken up. On the tea gardens therefore no considerable increase of population can be expected. As it is, tea occupies a third of the cropped area, and the tea gardens employ a labour force of 53,000, or one-fifth of the total population of the district. As regards ordinary cultivation, only one-third of the district is cultivable, and it cannot therefore hope to support a teeming agricultural population. Even in Kalimpong, where nearly half the land is reserved for native cultivation, it is recognised that it has reached the limit of safety in some parts, and in such localities it has been found necessary to prohibit further extension.

282. The net result in 1901-11 was a progressive decrease in the rate of increase and a shrinkage of the volume of immigration. Statement I.94 showing changes in the growth of population of Darjeeling registers a decrease almost everywhere except in Kalimpong subdivision. Between 1872 and 1921 the district experienced phenomenal growth, but between 1901-51 the happy period of expansion and carefree production in an expanding market was over and the rate of growth during this period 1901-51 was very much less than half of the period 1872-1921. Nevertheless growth between 1921 and 1951 has not been disappointing at all, the areas of specially rapid growth having been Pulbazar, Kurseong and Siliguri police stations: Pulbazar saw a great increase in agriculture, Kurseong in tea and as a railway and residential town, and Siliguri for its growing importance as the biggest railway and road terminus in Northern Bengal. During 1911-21 the influenza epidemic caused great mortality in the hills and hung about longer than in the plains, probably because the greater distance and the less frequent intercourse between one collection of homesteads and the next caused infection to spread less rapidly. There were also local epidemics of relapsing fever. The *terai* and Kalimpong were opened up by the Siliguri-Kissenganj and the Siliguri-Giellekhola railways in 1914-15. During 1921-31 there was less immigration from Nepal. Siliguri police station improved as a consequence of the extension of the broad-gauge railway to the town. There was considerable immigration from Bihar in the *terai* and Kurseong improved because of tea. During 1931-41 there was a severe earthquake in January 1934 when a large number of old buildings in Darjeeling town and Tindharia collapsed. In 1935 there was heavy flood in the Mechi

river which destroyed the standing crop over 2,664 acres of land, covered it with sand and rendered the area useless for cultivation. In 1937 the Mechi changed its course and destroyed 216 acres of forest. In 1941-51 Darjeeling did not suffer very much from the famine of 1943-44. World War II brought prosperity in every way to tea, to agriculture and to contractors of military supplies. The war also gave a great fillip to recruitment in the armed services, and the first half of the last decade was the most prosperous quinquennium that the district has even seen. It was also one of the first districts where full rationing was introduced early in 1944 over a wide area. There was very little migration in the hills after the partition but the Siliguri subdivision saw some between 1949 and 1951. A disastrous landslide occurred in June 1950. It took a toll of 102 human lives and 285 head of cattle, besides loss to properties estimated at Rs. 1·1 million. The landslides, which occurred all over the hills in Darjeeling and Sikkim, paralysed all communication for some time, and it took four months to put the roads right. But such was the efficiency of the food organisation that the district never suffered scarcity of rations.

STATEMENT I.95

Percentage of age groups and of married women (15-40) to total population and of children (0-5) to married women (15-40) in Darjeeling, 1901-51

Year	Percentage of persons, males and females to total population						Percentage of married women (15-40) to total population	Percentage of children (0-5) to total married women (15-40)
	Age group 0-15			Age group 15-60				
	P	M	F	P	M	F		
1	2	3	4	5	6	7	8	9
1901 . . .	37·6	35·8	39·5	58·4	60·4	56·2	15·7	88·7
1911 . . .	38·2	36·6	40·1	57·4	59·4	55·2	14·9	87·6
1921 . . .	37·6	36·4	39·2	57·7	59·2	55·8	14·4	82·7
1931 . . .	38·8	37·2	40·6	57·4	59·3	55·3	14·6	102·2
1941 . . .	38·6	36·8	40·4	57·3	59·0	55·6	14·0	102·9
1951 . . .	39·8	37·8	42·1	56·9	58·9	54·6	14·6	102·4

283. Darjeeling has a proportionately large young population but not larger than Malda, West Dinajpur and Jalpaiguri. Specific mortality among girls below 15 is much less than among boys, while specific mortality among women is much greater than among men. The proportion of married women aged 15-40 to total population is substantially lower than in other districts. The conclusions that can be drawn from this are discussed later. The influenza epidemic has left its mark in column 9 for the year 1921. The size of the family has been bigger since 1931 than in most other districts: this bears out common experience in the district. This in conjunction with column 2 indicates that both the birth and death rates in the young ages are high. There must also be an appreciable amount of maternal mortality.

STATEMENT I.96

Immigration and emigration in Darjeeling from and outside the State, 1891-1951

	1951	1941	1931	1921	1911	1901	1891
Actual population	445,260	376,369	319,635	282,748	265,550	249,117	223,314
Immigration	100,311	95,750	100,700	101,807	111,269	113,588	119,670
Emigration	6,900	4,120	3,455	6,000	6,000	802	962
Natural population	351,849	284,739	222,390	186,941	160,281	136,331	104,606
Percentage variation . . .	+23·6	+28·0	+19·0	+16·6	+17·6	+30·8	..

284. The figure for 1951 includes 15,738 Displaced persons. The statement is interesting inasmuch as it shows how the immigrant population is being gradually substituted by their children born in Darjeeling. Nevertheless, the fact remains that there must be a great deal of intercourse still between Nepal, Sikkim, Tibet and Bhutan on the one hand and Darjeeling on the other. The emigrant population has been fairly constant representing those Indians who were born in the district whose parents were on pleasure tour, business and service. The above statement does not include 3,315 Muslims, who according to the West Bengal Government left the State for Pakistan of whom 1,385 later returned.

STATEMENT I.97

Migration between Darjeeling and other Districts of Bengal in 1891-1921 and West Bengal in 1951

Year	Immigration				Emigration			
	From contiguous districts		From other districts		To contiguous districts		To other districts	
	M	F	M	F	M	F	M	F
1891	8,368	6,640	1,688	691	1,674	1,124	338	131
1901	8,455	6,757	16,172	9,872	2,147	1,995	486	264
1911	2,000	1,000	2,000	1,000	1,000	2,000	600	400
1921	2,000	1,000	3,000	2,000	2,000	1,000	1,000	1,000
1951	2,032	935	2,256	1,565	2,990	2,547	4,361	2,747

285. The statement illustrates what a small proportion migration between Darjeeling and other districts of the State bears to migration from and outside the State. The large immigration figures of 1891 and 1901 were due, as already noted, to the filling up of the agricultural areas in the *terai* by immigration from Dinajpur, Rangpur and Jalpaiguri. This is perhaps the only district where immigration and emigration from and to other districts have remained at a low level since 1911 and where the Partition has made little difference in their volumes. The two statements indicate that population in the district is well near saturation point, both in tea and agriculture, that migration has taken place more or less on the basis of the family as the unit, and that the industrial population in tea is fairly settled in their place of work. The comparative paucity of strikes and industrial discontent in the district due in part to lack of labour organisation and very low living standards also bears out the above observation.

Cooch Behar

286. Until January 1950 Cooch Behar was what used to be known as a Native Princely State. The census of the State started with 1872. As statement I.98 will show there was a substantial increase in 1881, chiefly due to more accurate counting, but it is also certain that the State was healthy, prosperous, and an object of attraction to immigrants. But between 1881 and 1891 there were decreases in every police station except Tufanganj which continued to grow on account of immigrants. There were two outbreaks of cholera in 1883 and a severe epidemic in 1887-88 and emigration to the Duars of Jalpaiguri. But Cooch Behar is intersected by several large rivers flowing from the Himalayas in unobstructed channels, and yields a water supply which is ordinarily pure but liable to be easily contaminated. It is a low-lying waterlogged plain, and the unhealthiness of the climate, and to a smaller extent emigration, robbed the State of a proportion of its population in 1891-1901. There was a severe epidemic

of cholera in 1891, and fever was always present. But the condition of the people in other respects was satisfactory. They got three crops a year, and if one fell short, they had the others to fall back upon. There was scarcity in 1892 and 1897, but it did not amount to famine and in other years the outturn was usually good. The Gitaldaha-Manshahi railway line (3′ 3⅜″ gauge) opened in 1893, followed by the Manshahi-Cooch Behar extension in 1898, and another extension from Cooch Behar to Alipur Duar in 1900. This railway which in 1913-14 became the Cooch Behar State railway and the Bengal Duars State railway did much to develop the resources of the country and greatly facilitated the disposal of produce of all kinds. If only the climate were more salubrious, a rapid expansion of population might be expected but the unhealthiness of the climate more than counter-balanced the productivity of the soil. Tufanganj kept its head above water owing to immigration from Rangpur but Haldibari recorded a substantial increase on account of its growing importance as a centre of the jute trade, its situation on the Eastern Bengal Railway, and its comparative healthiness. Conditions during the decade ending in 1911 were more favourable. Fever, which is the scourge of this lowlying waterlogged tract, showed some abatement, while cholera, from severe epidemics of which the State suffered periodically, was not so prevalent. There was a serious flood in 1906, from which the north of the Mathabhanga subdivision suffered most, but otherwise there were no seasonal calamities. Cultivation expanded, the cultivators benefited by the rise in the price of agricultural produce, and there was an increasing demand for labour, which was met by the import of labourers from up-country. The Gauhati extension of the Eastern Bengal Railway was built during the decade and helped to open out the south-east of the State. During 1911-21 there was no event of great importance except the influenza epidemic and immigration. During 1921-31 the State suffered heavily from cholera and small-pox epidemics in 1928-29 which accounted for over 4,000 known deaths alone, whilst it is probable that a very great number of deaths was unreported. During 1931-41 there was no major event affecting the population and during 1941-51 the famine and epidemics of 1943-44 did not trouble the State to any degree. There was a severe flood in Mekliganj in June 1950 followed by an earthquake in August the same year.

STATEMENT I.99

Percentage of age groups and of married women (15—40) to total population and of children (0-5) to married women (15-40) in Cooch Behar, 1901-51

Year	Percentage of persons, males and females to total population						Percentage of married women (15-40) to total population	Percentage of children (0-5) to total married women (15-40)
	Age group 0-15			Age group 15-60				
	P	M	F	P	M	F		
1	2	3	4	5	6		8	
1901 . . .	39·5	38·0	41·1	56·1	57·3	54·8	14·2	97·5
1911 . .	39·3	38·0	41·0	56·2	57·3	54·7	14·7	95·5
1921 . . .	40·1	39·0	41·4	56·0	56·8	55·0	14·6	93·7
1931 . . .	41·1	39·7	42·6	56·0	57·0	54·9	14·9	100·6
1941 . . .	37·5	36·3	39·1	59·0	59·8	57·8	17·1	78·0
1951 . .	40·2	38·4	42·1	57·3	58·9	55·6	16·1	96·0

287. Cooch Behar has a young population among whom specific mortality among boys is greater than among girls. But in the adult population the position is reversed and specific mortality among women is greater than among men. The low proportion of married women (15—40) to total population up to 1931 suggests that immigration of adult males must have been heavy. The district also has a comparatively small number of women in its natural population. The effect of the influenza epidemic and fevers is reflected in column 9 for 1921; the column also suggests bogus inflations of married women in the 1941 census count. Except for 1931 when emigrations occurred, the size of the unitary family seems to have remained fairly constant throughout half a century.

STATEMENT I.100

Immigration and emigration in Cooch Behar from and outside the State, 1891-1951

	1951	1941	1931	1921	1911	1901	1891
Actual population . . .	671,158	640,842	590,886	592,489	592,952	566,974	578,868
Immigration	145,916	18,400	14,918	22,792	24,688	18,788	14,557
Emigration	3,690	2,203	1,848	1,000	3,500	1,272	1,590
Natural population . . .	528,932	624,645	577,816	570,697	571,764	549,458	565,901
Percentage variation . . .	—15·3	+8·1	+1·2	—0·2	+4·1	—2·9	..

288. The figure for immigrants in 1951 includes 99,917 Displaced persons but emigrants do not include 31,484 Muslims who according to the West Bengal Government left the district between 1947 and 1951 but of whom 17,026 later returned. There has been a steady stream of immigration from outside the State, as the following statement of internal migration will show.

STATEMENT I.101

Migration between Cooch Behar and other Districts of Bengal in 1891-1921 and West Bengal in 1951

Year	Immigration				Emigration			
	From contiguous districts		From other districts		To contiguous districts		To other districts	
	M	F	M	F	M	F	M	F
1891 . . .	12,997	15,192	3,262	1,201	22,774	19,857	259	170
1901 . . .	9,165	12,531	12,668	2,255	15,764	15,017	274	216
1911 . . .	11,000	13,000	5,000	2,000	17,000	15,000	300	300
1921 . . .	9,000	12,000	10,000	6,000	12,000	12,000	1,000	..
1951 . . .	1,019	1,051	797	807	5,079	4,761	3,338	1,926

289. Cooch Behar exported emigrant families to settle in the clearings along the southern fringe of the Duars forests in Jalpaiguri, where the rates of rent were easy, and also persons who wanted to escape decrees passed against them by the Cooch Behar High Court. Rangpur sends a large number of immigrants and latterly Mymensingh also sent settlers. Immigrants from Assam and Bihar constitute a large percentage of the population. Males having been in large excess in the natural population the district has steadily imported more females from contiguous districts since 1891.

Sikkim

290. By the treaty of Titalya in 1871, the independence of Sikkim, which the Gurkhas had begun to menace was guaranteed and the settlement of Nepalis in Sikkim was thus prevented from that date until 1889. In the latter year the aggression of the Tibetans led to a war which was succeeded by the more active intervention of the Indian Government. A Political Officer was appointed; communications were greatly improved by the construction of roads and bridges, and the settlement of Nepalis was permitted in certain parts of the State. These measures were followed by a rapid development of the country. Settlers from Nepal flocked in. Statement I.102 shows the progress of the population during 1891-1951. The enumeration of 1891 was admittedly incomplete but the increase in 1901 was largely due to immigration. The climate was good; there were no serious epidemics; the people were prosperous. They are naturally prolific, the crowds of children being a very striking feature of every Sikkim hamlet. During 1891-1901 there was a phenomenal increase of 94 per cent. which was largely due to immigration: no less than 38·5 per cent. of the population were returned as born in Nepal, and the greater majority of them were newcomers, who had crossed the border since 1891. The influx of settlers continued and the increase was due partly to natural growth among the hardy and prolific races, and partly to the greater completeness of the count, which was for the first time in 1911 carried out by an organised census staff. During 1911-21 there was a reduction of the population owing to the ravages of the influenza epidemic, and of local epidemics of "relapsing fever". The State suffered continually from both these scourges during the last three years of the decade. When either scourge fell upon a particular valley, the rate of mortality was often very high indeed and the stricken population for the time being deserted their homes and fled up the hillside into the forest. During 1921-31 immigration rose again and accounted for a great deal of the increase while emigration was reduced practically to nil. The decade was characterised by a great extension of cultivation. Progress continued throughout 1931-41 and 1941-51. There was no major event until after the Partition of India when there was a fresh treaty with the Sikkim Durbar in 1948. There were disastrous landslides in June 1950. In the last twenty years the whole State has been covered by a good network of roads and rest houses, cultivation has greatly improved, and since 1947 the Government of India has taken over the responsibility of building arterial roads. A Union Government official acts as the Dewan.

291. Cultivation is confined to lower levels, and usually below 5,000 feet. Here the country has been largely denuded of forest and the slopes utilised for the growth of maize, millet and pulse, the people living in smaller homesteads surrounded by their patches of cultivation. In the bottom of the valleys rice is grown, and terraced rice fields ingeniously irrigated from the numerous streams rise sometimes to 2,000 and 3,000 feet up the hillsides. The Nepali immigrants have a genius for the elaborate engineering by which these terraces are prepared. A streamlet on to the topmost of a long series of terraces three or four feet below one another and sometimes no wider than this, filters and falls from one to the other, and the rich soil in which rice is transplanted yields an abundant harvest. The south-eastern part below the Chola range which forms the Tibetan boundary, perhaps a quarter of the whole area of the State, has few points rising over 6,000 feet, and the valleys of the Tista and the streams flowing into it from the eastward are the most densely populated parts. There is also considerable cultivation in the valleys which come down into the

Great Rangeet. Though the majority of the population is now Hindu and of Nepalese origin, the State religion is Buddhist and it is a feature of the country that monasteries are so frequently to be seen.

STATEMENT I.103

Percentage of age groups and of married women (15-40) to total population and of children (0-5) to married women (15-40) in Sikkim, 1901-51

Year	Percentage of persons, males and females to total population: Age group 0-15: P	Age group 0-15: M	Age group 0-15: F	Age group 15-60: P	Age group 15-60: M	Age group 15-60: F	Percentage of married women (15-40) to total population	Percentage of children (0-5) to tota married women (15-40)
1	2	3	4	5	6	7	8	9
1901 . . .	37·2	37·6	37·0	56·4	55·9	56·7	16·3	77·7
1911 . . .	40·1	40·3	40·1	53·5	53·7	53·1	15·1	91·5
1921 . . .	38·6	38·6	38·6	55·0	55·2	54·8	14·5	82·6
1931 . . .	40·9	40·9	41·0	53·8	54·1	53·4	14·6	107·2
1941 . . .	41·5	39·6	43·6	53·9	56·6	51·0	11·9	114·6
1951 . . .	42·4	39·7	45·6	53·3	56·5	49·5	10·9	143·8

292. Up to 1921 while immigration had had the upper hand the proportion of the young population was slightly less than afterwards. It is sad to reflect that specific mortality among females was higher than among males throughout 1901-11 but after 1911 the rates began to conform to the West Bengal pattern: that is, a smaller specific mortality among girls counterbalanced by a higher one among women. The State is having a more and more young population with the passage of years and the proportion of married women to the total population is very small and growing still less. This may be partly due to the vestiges of the matriarchal system and polyandry which of course has been dying out more than it has increased as the figures might otherwise suggest. But there is the other fact that the Sikkimese is very prolific and has a large unitary family as column 9 for 1931, 1941 and 1951 shows. The effect of the influenza epidemic and relapsing fever in 1917-20 is seen in column 9 for 1921. The birth rate and death rate in young ages must be both pretty high.

STATEMENT I.104

Immigration and emigration in Sikkim from and outside the State, 1901-51

	1951	1941	1931	1921	1911	1901
Actual population . . .	137,725	121,520	109,808	81,721	87,920	59,014
Immigration	5,442	7,800	15,417	22,978	29,835	25,004
Emigration . . .	22,356	not available	7,212	4,133	3,445	2,188
Natural population . .	154,639	113,720	101,603	62,876	61,530	36,198
Percentage variation . .	+36·0	+11·9	+61·6	+2·2	+70·0	..

293. The statement shows to what extent and how rapidly immigrants from Nepal poured into the State. Emigration was mainly confined to Darjeeling district. The extraordinary increase in the natural population indicates a very high birth rate in normally healthy decades.

Chandernagore

294. Chandernagore, an enclave in Hooghly district, has grown entirely on the population of West Bengal. The progress of the place is shown by Statement I.105 and Statement I.106 which shows the growth of its population from decade to decade reflects the effect of immigrations into this town between 1931 and 1951. The outbreak of World War II saw a great rush of immigration into Chandernagore for several reasons. Chandernagore being outside the Indian Government did not suffer from any of the restrictions imposed by war and permitted free trade without licenses and permits. A large number of flocked into Chandernagore to ply trade flocked into Chandernagore to ply trade in West Bengal, yet escaping a great many restrictions on the pretext of being in a French possession. In the next place Chandernagore did not have petrol rationing to start with, and even when it had it, its rations were more liberal than in India. Businessmen and contractors with large fleets of lorries and cars flocked into the town and had their vehicles registered to be able to draw plentiful supplies of petrol. Thirdly, Chandernagore did not have food rationing and even when it had it the administration permitted free trade in rationed commodities side by side. Thus during 1939-51 Chandernagore became an oasis of free trade and plentiful supplies in a desert of restrictions, permit systems and tightening of belts, and as is inevitable in such a circumstance, became a great centre of smuggling and freebooting. The place itself became a vested interest for businessmen and traders and all those who wanted an escape from the rigours of Indian laws, and it was this which stirred up agitation in the name of preservation of French culture on the eve of its merger into India. These were also the reasons for its phenomenal growth between 1939 and 1951. The following statement shows migration between Chandernagore and India between 1901 and 1951 and requires no explanation.

STATEMENT I.106

Immigration and emigration in Chandernagore from and outside the territory 1901-51

	1951	1941	1931	1921	1911	1901
Actual population . . .	49,909	38,284	27,262	25,423	25,293	26,831
Immigration	14,833	not available	12,611	14,450	9,628	10,999
Emigration . . .	12,542	negligible	261	negligible	negligible	negligible
Natural population .	47,618	38,284	14,912	10,973	15,665	15,832
Percentage variation . .	+24·4	+156·7	+35·9	—30·0	—1·1	..

STATEMENT I.38

Percentages of age groups to population, 1901-51

District	1951			1941			1931			1921			1911			1901		
	Persons	Maels	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
Burdwan																		
Total	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0
0—5	13·4	13·2	13·7	11·6	11·0	12·3	13·0	12·5	13·6	9·3	9·0	9·6	11·3	11·0	11·6	11·8	11·5	12·1
5—10	10·5	10·1	10·9	12·5	12·4	12·5	11·5	11·9	11·2	12·9	12·0	12·9	13·1	13·4	12·9	12·8	12·9	12·6
10—15	11·0	11·1	10·9	10·8	10·7	10·8	10·3	10·6	10·0	11·2	12·3	10·0	11·0	12·0	10·0	10·4	11·5	9·3
15—20	12·8	12·8	12·8	9·4	9·0	9·9	9·3	8·7	9·8	10·4	9·7	11·0	9·8	9·1	10·5	9·1	8·9	9·3
20—30	19·7	20·1	19·1	19·0	18·8	19·3	20·0	19·5	20·5	19·9	19·3	20·5	16·2	16·3	16·0	15·9	16·2	15·6
30—40	12·9	13·1	12·7	16·4	17·6	15·0	16·3	17·3	15·3	15·6	16·3	14·9	16·2	16·3	16·0	15·9	16·2	15·6
40—50	9·4	9·2	9·8	10·7	11·3	10·0	10·4	10·9	9·7	10·4	11·0	9·9	8·6	8·7	8·5	9·3	9·1	9·4
50—60	5·8	5·6	6·0	6·1	6·1	6·2	5·7	5·5	5·9	6·0	5·7	6·3	8·6	8·7	8·5	9·3	9·2	9·4
60 and Over	4·5	4·8	4·1	3·5	3·1	4·0	3·5	3·1	4·0	4·3	3·8	4·9	5·2	4·5	6·0	5·5	4·5	6·7
Birbhum																		
Total	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0
0—5	13·6	13·7	13·5	12·7	12·4	12·9	14·9	14·7	15·1	9·9	9·6	10·1	11·9	11·6	12·3	13·4	13·1	13·8
5—10	12·4	13·0	11·8	13·4	14·5	12·4	12·3	12·8	11·7	13·5	13·7	13·2	14·7	15·1	14·4	14·7	15·2	14·3
10—15	11·5	11·8	11·1	11·1	11·6	10·6	10·2	10·7	9·7	10·6	11·8	9·4	11·0	12·0	10·0	10·2	11·3	9·1
15—20	10·1	9·1	11·3	9·0	8·7	9·4	8·4	7·8	8·9	10·3	9·8	10·9	9·6	9·0	10·2	8·4	7·9	8·8
20—30	18·0	17·8	18·1	16·8	15·6	17·9	18·8	18·0	19·7	20·1	19·3	20·9	15·5	15·4	15·5	15·4	15·4	15·4
30—40	13·9	14·1	13·7	15·0	15·0	15·0	15·5	16·1	15·1	14·9	15·5	14·4	15·5	15·5	15·5	15·4	15·4	15·4
40—50	10·5	10·9	10·1	10·9	11·5	10·3	10·1	10·5	9·7	10·2	10·4	10·0	8·2	8·3	8·1	8·4	8·4	8·4
50—60	6·4	6·3	6·5	6·6	6·7	6·5	6·0	5·9	6·1	6·2	6·0	6·4	8·2	8·3	8·1	8·4	8·4	8·4
60 and Over	3·6	3·3	3·9	4·5	4·0	5·0	3·8	3·5	4·0	4·3	3·9	4·7	5·4	4·8	5·9	5·7	4·9	6·4
Bankura																		
Total	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0
0—5	14·8	15·0	14·6	12·4	12·0	12·9	13·9	13·8	14·0	10·7	10·3	11·0	12·4	12·2	12·7	13·6	13·8	13·4
5—10	13·2	14·9	11·3	13·3	13·9	12·7	12·6	13·3	11·9	14·5	14·8	14·3	14·0	15·2	14·5	14·9	15·1	14·8
10—15	13·2	13·5	13·0	11·3	11·7	10·9	11·1	11·7	10·3	11·7	13·0	10·4	11·6	13·0	10·1	11·5	13·0	10·0
15—20	8·1	8·5	7·8	9·3	8·8	9·7	9·2	8·9	9·5	10·6	10·3	10·7	10·1	9·9	10·4	9·4	9·2	9·5
20—30	15·2	15·3	14·8	17·0	16·3	17·6	18·9	18·1	19·8	18·9	18·3	19·5	15·2	15·0	15·4	14·5	14·3	14·8
30—40	12·9	12·4	13·4	14·7	15·0	14·4	14·8	15·0	14·5	13·9	14·3	13·5	15·2	15·0	15·4	14·5	14·3	14·8
40—50	10·0	10·0	10·1	10·7	11·3	10·1	9·7	10·0	9·5	9·5	9·7	9·3	7·7	7·6	7·8	8·1	7·9	8·2
50—60	6·3	5·8	6·8	6·8	6·8	6·8	5·8	5·6	6·1	5·7	5·4	6·1	7·7	7·6	7·8	8·1	7·9	8·2
60 and Over	6·3	4·6	8·2	4·5	4·2	4·9	4·0	3·6	4·4	4·5	3·9	5·2	5·2	4·5	5·9	5·4	4·5	6·3
Midnapur																		
Total	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0
0—5	13·2	12·2	14·2	12·3	12·1	12·6	13·4	13·0	13·8	10·4	10·1	10·7	12·1	11·8	12·4	12·1	11·7	12·4
5—10	11·4	10·7	12·2	13·1	13·5	12·6	12·3	13·1	11·5	14·3	14·5	14·2	14·0	14·4	13·6	14·4	14·8	14·1
10—15	11·7	11·2	12·1	11·0	11·2	10·7	11·0	11·7	10·3	11·7	13·2	10·2	10·9	12·3	9·5	11·1	12·6	9·5
15—20	10·7	10·2	11·3	9·2	8·8	9·7	9·9	9·0	10·8	10·5	10·1	10·8	10·4	9·9	10·8	10·2	9·7	10·7
20—30	17·9	17·8	18·1	18·3	17·3	19·3	20·5	19·1	21·8	19·1	18·2	20·1	16·2	16·0	16·4	15·8	15·6	16·1
30—40	13·5	14·1	12·8	15·5	15·9	15·0	14·5	15·2	13·7	14·4	14·9	13·9	16·2	16·0	16·4	15·8	15·6	16·1
40—50	10·3	11·6	8·9	10·1	10·8	9·4	9·4	10·2	8·7	9·5	10·0	9·0	7·6	7·6	7·6	7·8	7·9	7·7
50—60	6·4	7·2	5·6	6·3	6·5	6·0	5·5	5·5	5·5	5·5	5·2	5·7	7·6	7·6	7·6	7·8	7·9	7·7
60 and Over	4·9	5·0	4·8	4·2	3·9	4·7	3·5	3·2	3·9	4·6	3·8	5·4	5·0	4·4	5·7	5·0	4·2	5·7

STATEMENT I.38—contd.

Percentages of age groups to population, 1901-51

District	1951			1941			1931			1921			1911			1901		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
Hooghly																		
Total	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0
0—5	14·6	13·8	15·5	11·9	11·0	13·0	12·4	11·6	13·2	10·1	9·7	10·7	11·9	11·6	12·2	10·9	10·6	11·2
5—10	12·3	11·8	13·0	12·6	12·3	12·9	10·9	10·9	10·8	12·6	12·4	12·9	12·1	12·1	12·0	11·9	12·0	11·7
10—15	11·0	10·7	11·3	10·3	10·0	10·6	10·2	10·2	10·2	11·3	12·3	10·1	10·2	11·0	9·3	11·0	12·1	9·9
15—20	10·2	9·5	11·1	9·3	8·8	9·8	10·0	9·6	10·4	9·8	9·2	10·4	9·7	9·0	10·5	9·7	9·2	10·2
20—30	17·8	18·1	17·5	19·2	19·2	19·2	20·7	20·7	20·6	19·5	18·9	20·1	16·6	17·1	16·2	16·1	16·3	16·0
30—40	13·7	14·7	12·6	16·6	17·9	15·1	16·0	17·3	14·7	15·6	16·8	14·2	16·7	17·1	16·2	16·1	16·3	16·0
40—50	9·6	10·3	8·8	10·3	11·3	9·2	10·6	11·2	9·8	10·4	11·0	9·7	8·6	8·6	8·7	9·4	9·4	9·3
50—60	6·0	6·2	5·6	5·9	6·1	5·8	5·6	5·4	5·9	5·9	5·5	6·4	8·6	8·6	8·7	9·4	9·4	9·3
60 and Over	4·8	4·9	4·6	3·9	3·4	4·4	3·6	3·1	4·2	4·8	4 2	5·5	5·6	4·9	6·2	5·5	4·7	6·4
Howrah																		
Total	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0
0—5	13·2	12·0	14·8	12·6	11·4	14·2	12·9	11·7	14·3	11·1	10·3	12·1	12·3	11·5	13·3	12·4	11·6	13·2
5—10	11·8	11·0	12·8	12·5	11·8	13 5	11·5	11·3	11 7	13·1	12·4	13·8	12·7	12·3	13·1	13·2	12·9	13·5
10—15	11·6	11·2	12·0	10·2	10·2	10·3	10·8	10·6	11·0	11·0	11·9	10·0	10·4	11·4	9·4	11·3	12·3	10·2
15—20	10·9	10·6	11·3	9·4	9·1	9·8	10·2	9·7	10·8	10·0	9·4	10·7	10·1	9·4	10·8	9·9	9·5	10·4
20—30	20·1	21·2	18·6	20·2	20·8	19·4	20·5	21·0	20·1	19·5	19·6	19·5	16·9	17·8	15·8	16·1	16·8	15·3
30—40	14·3	15·8	12·5	15·8	17·2	13·9	15·2	16 7	13·4	15·2	16·7	13·5	16·9	17·8	15·8	16·1	16·9	15·3
40—50	9·1	9·7	8·3	9 7	10·3	8·8	9·7	10·3	8 9	9·8	10·4	9·0	7·7	7·6	7·8	7·8	7·8	7·9
50—60	5·5	5·3	5·7	5·6	5·6	5·5	5·4	5·3	5·5	5·5	5·2	5·8	7·7	7·6	7·8	7·8	7·8	7·9
60 and Over	3·5	3·2	4·0	4·0	3·6	4·6	3·8	3·4	4·3	4·8	4·1	5·6	5·3	4·6	6·2	5·4	4·4	6·3
24-Parganas																		
Total	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0
0—5	15·1	13·8	16·8	13·1	11·9	14·4	14·2	13·0	15·5	11·3	10·2	12·7	13·0	11·7	14·4	13·6	12·5	14·9
5—10	12·9	12·4	13·5	13·5	13·0	14·2	12·1	12·1	12·1	14·2	13·4	15·1	14·2	13·7	14·7	13·7	13·7	13·7
10—15	10·9	11·3	10·5	10·4	10·1	10·7	11·0	10·9	11·1	10·8	11·5	10·0	10·3	11·1	9·4	10·6	11·6	9·5
15—20	10·6	9·6	11·8	8·9	8·5	9·5	9·9	9·2	10·8	9·8	8·9	10·9	9·6	8·7	10·6	9·3	8·7	10·0
20—30	19·3	20·0	18·5	19·8	19·8	19·8	20·3	20·1	20·4	19·7	19·5	19·9	16·8	17·5	15·9	15·8	16·1	15·4
30—40	13·1	14·4	11·6	15·4	16·7	13·9	14·9	16·2	13·3	15·0	16·6	13·1	16·8	17·5	15·9	15·8	16·1	15·4
40—50	8·8	9·4	8·0	9·4	10·4	8·2	9·1	10·0	8·2	9·5	10·5	8·4	7·2	7·6	6·9	7·8	7·9	7·8
50—60	5·2	5·3	5·0	5·5	5·7	5·2	4·9	5·1	4·8	5·2	5·2	5·1	7·2	7·6	6·9	7·9	7·9	7·8
60 and Over	4·1	3·8	4·3	4·0	3 9	4·1	3·6	3·4	3·8	4·5	4·2	4·8	4·9	4·6	5·3	5·5	5·5	5·5
Calcutta																		
Total	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0
0—5	11·3	8·6	16·2	7·7	6·1	11·2	8·5	6·5	12·7	7·0	5·4	10·5	7·0	5·3	10·5	7·1	5·6	10·1
5—10	8·2	6·6	11·2	8·6	6·8	12·5	8·0	6·6	11·0	7·8	6·1	11·4	7·5	5·8	11·1	7·1	5·6	10·0
10—15	10·2	9·1	12·0	8·2	7·1	10·8	8·2	7·2	10·4	8·2	7·8	9·0	7·6	7·1	8·4	7·7	7·2	8·5
15—20	12·0	12·2	11·6	9·9	9·8	10·2	10·7	10·8	10·4	9·4	9·4	9·3	9·3	9·3	9·1	9·3	9·2	9·3
20—30	22·7	25·0	18·6	27·0	29·7	20·9	26·1	28·3	21·5	25·3	27·3	21·0	23·0	25·4	18·2	21·9	24·2	17·6
30—40	17·1	19·1	13·4	20·0	22·0	15·5	19·6	21·7	15·1	20·2	21·9	16·4	23·0	25·4	18·2	21·9	24·2	17·6
40—50	10·4	11·6	8·1	10·8	11·3	9·7	10·6	11·4	9·4	12·1	13·0	10·4	9·0	9·0	9·0	10·0	10·0	10·0
50—60	5·2	5·3	5·2	5·0	4·9	5·3	5·0	4·9	5·4	5·9	5·7	6·4	9·0	9·0	9·0	10·0	10·0	10·0
60 and Over	2·9	2·5	3·7	2·8	2·3	3·9	3·1	2·6	4·1	4·1	3·4	5·6	4·6	3·7	6·5	5·0	4·0	6·9

STATEMENT I.38—contd.

Percentages of age groups to population, 1901-51

District	1951			1941			1931			1921			1911			1901		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
NADIA																		
Total . . .	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0
0—5 . . .	14·7	15·3	14·1	14·1	13·5	14·7	14·0	13·6	14·5	11·4	11·0	11·9	14·1	13·8	14·4	12·9	13·7	14·0
5—10 . .	11·5	12·4	10·6	13·9	13·8	14·0	12·9	13·5	12·2	13·9	14·2	13·5	13·4	14·0	12·8	14·5	15·1	13·8
10—15 . .	11·9	12·8	10·9	11·2	11·7	10·6	11·6	12·3	10·9	11·9	13·3	10·4	11·1	12·6	9·5	11·7	13·3	10·1
15—20 . .	10·7	10·7	10·7	9·1	9·1	9·2	9·1	8·8	9·5	9·1	8·9	9·3	9·1	9·0	9·3	8·4	8·3	8·4
20—30 . .	19·8	19·5	20·2	17·2	16·7	17·6	18·2	17·4	19·0	18·1	17·2	19·0	15·6	15·3	15·9	14·8	14·4	15·2
30—40 . .	12·9	12·4	13·4	14·2	14·6	13·9	14·6	15 0	14·2	14·7	15·2	14·2	15·6	15·3	15·9	14·8	14·4	15·3
40—50 . .	9·2	8·7	9·7	10·0	10·5	9·4	10·0	10·4	9·6	10·3	10·7	10·0	7·9	7·7	8·1	8·1	8·0	8·2
50—60 . .	5·3	4·9	5·6	6·1	6·1	6·1	5·9	5·7	6·0	6·0	5·6	6·4	7·9	7·7	8·1	8·1	8·0	8·3
60 and Over . .	4·0	3·3	4·8	4·2	4·0	4·5	3·7	3·3	4·1	4·6	3·9	5·3	5·3	4·6	6·0	5·7	4·8	6·6
MURSHIDABAD																		
Total . . .	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0
0—5 . . .	16·6	16·2	17·0	14·5	14·1	15·0	16·1	15·9	16·2	12·4	12·0	12·8	14·5	14·4	14·7	14·4	14·8	14·5
5—10 . .	12·8	13·0	12 6	14·6	14·8	14·3	13·4	14·1	12·7	14·3	14·8	13·9	14·8	15·2	14·4	15·2	16·0	14·4
10—15 . .	12·0	12·6	11·3	12·0	12·7	11·4	11·4	12·0	10·7	11·8	13·3	10·2	11·1	12·4	9·7	11·1	12·6	9·6
15—20 . .	10 0	9·7	10·4	9·3	9·4	9·1	8·7	8·3	9·1	9·7	9·5	9·9	9·4	9·2	9·6	8·6	8·5	8·8
20—30 . .	17·6	17·5	17·7	16·3	15·6	16·9	17·9	17·3	18·6	18·3	17·4	19·1	15·0	15·0	15·1	14·8	14·6	14·9
30—40 . .	13·0	13·0	13 0	13·4	13·6	13·3	14·0	14·3	13·7	13·8	14·3	13·4	15·0	15·0	15·1	14·8	14·6	14·9
40—50 . .	8·9	9·0	8·9	9·7	9·8	9·6	9·2	9·4	9·0	9·5	9·6	9·4	7·5	7·2	7·7	7·7	7·4	8·1
50—60 . .	5·5	5·3	5·6	5·9	6·1	5 7	5·6	5·3	5·9	5·7	5·2	6·1	7·5	7·2	7·7	7·7	7·4	8·1
60 and Over . .	3·6	3·7	3·5	4·3	3·9	4·7	3·7	3·4	4·1	4·5	3·9	5·2	5·2	4·4	6·0	5·7	4·6	6·7
MALDA																		
Total . . .	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0
0—5 . . .	17·3	17·1	17·5	15·8	15·7	15·8	16 6	16·4	16·8	14·3	14·0	14·7	16·3	16·1	16·6	15·2	14·9	15·5
5—10 . .	13·1	13·3	12·9	14·9	15·2	14·7	14·2	14·9	13·6	15·9	16·1	15·7	16·6	16·8	16·3	15·9	16·2	15·5
10—15 . .	11·6	11·5	11·6	11·4	11·7	11·1	12·2	12·7	11·7	11·4	12·6	10·2	10·8	11·8	9·8	10·9	12·1	9·7
15—20 . .	9·5	9·2	9 8	9·0	8·9	9·2	9·0	8·5	9·6	9·7	9·3	10·2	9·0	8·7	9·3	9·3	9·0	9·8
20—30 . .	17·5	17·1	17·9	17·4	16·6	18·2	18·2	17·5	18·8	17·5	16·8	18·2	14·9	14·9	14 9	15·3	15·3	15·3
30—40 . .	13·1	13·9	12·4	14·1	14·2	13·9	13·6	14·0	13·2	13·6	14·1	13·0	14·9	14·9	14·9	15·3	15·3	15·3
40—50 . .	9·0	9·2	8·8	8·7	9·0	8·5	8·5	8·6	8·4	8·7	8·8	8·5	6·4	6·4	6·5	6·6	6·5	6·7
50—60 . .	5·0	4·9	5·0	5·0	5·0	5·0	4·5	4·4	4·6	4·8	4·6	5·0	6·5	6·4	6·5	6·6	6·5	6·7
60 and Over . .	3·9	3·8	4·1	3·7	3·7	3·6	3·2	3·0	3·3	4·1	3·7	4·5	4·6	4·0	5·2	4·9	4·2	5·5
WEST DINAJPUR																		
Total . . .	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0
0—5 . . .	16·8	15·9	17·9	13·8	13·0	14·8	16·1	15·1	17·3	13·7	12·6	14·9	15·2	13·9	16·7	14·7	13·4	16·1
5—10 . .	14·1	13·6	14·5	14·6	14·2	15·0	14·2	14·3	14·1	17·5	16·9	18·1	17·9	17·4	18·5	17·5	17·4	17·7
10—15 . .	9·8	10·0	9·7	10·7	10·9	10·4	11·7	11·7	11·6	10·2	10·9	9·3	9·5	10·4	8·5	9·5	10·5	8·5
15—20 . .	9·4	8·2	10·7	8·5	8·2	8·9	9·3	8·1	10·6	9·3	8·6	10·2	8·7	7·8	9·7	8·8	8·0	9·6
20—30 . .	19·0	18·3	19·7	18·8	17·4	20·4	19·2	18·2	20·4	18·6	17·1	20·3	16·1	16·1	16·0	16·2	16·2	16·2
30—40 . .	14·6	15·8	13·3	15·6	16·5	14·5	14·4	15·6	13·0	14·3	15·5	12·9	16·1	16·1	16·0	16·2	16·2	16·2
40—50 . .	9·0	10·2	7·8	9·6	10·6	8·5	8·3	9·5	7·1	8·8	10·1	7·4	6·6	7·4	5·7	6·7	7·3	6·0
50—60 . .	4·8	5·2	4·2	5·2	5·7	4·6	4·3	4·7	3·8	4·4	4·8	4·0	6·6	7·4	5·7	6·7	7·3	6·0
60 and Over . .	2·5	2·8	2·2	3·2	3·5	2·9	2·5	2·8	2·1	3·2	3·5	2·9	3·3	3·5	3·2	3·7	3·7	3·7

STATEMENT I.38—concld.

Percentages of age groups to population, 1901-51

District	1951			1941			1931			1921			1911			1901		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
Jalpaiguri																		
Total	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0
0—5	15·7	13·7	18·1	13·3	12·0	14·8	15·2	14·0	16·6	13·3	12·0	14·7	14·2	12·8	15·9	13·7	12·5	15·1
5—10	13·1	12·4	14·0	14·0	13·5	14·6	13·1	12·8	13·5	15·8	15·2	16·6	15·6	14·8	16·5	15·7	15·1	18·4
10—15	11·0	10·9	11·1	10·7	10·7	10·6	11·2	10·9	11·5	10·9	11·3	10·4	9·8	10·2	9·4	10·1	10·6	9·5
15—20	10·4	9·3	11·7	8·8	8·3	9·5	9·1	8·2	10·2	8·9	8·0	10·0	8·4	7·6	9·2	8·2	7·7	8·7
20—30	19·6	19·1	20·2	19·7	17·9	21·9	19·7	19·4	20·0	19·1	18·1	20·3	17·1	17·2	17·0	16·9	16·9	16·9
30—40	14·5	16·5	12·0	16·7	18·6	14·5	15·6	17·2	13·8	15·0	16·2	13·7	17·1	17·2	17·0	16·9	16·9	16·9
40—50	8·8	10·2	7·3	9·2	10·5	7·6	8·9	9·9	7·6	8·8	10·1	7·3	6·9	7·9	5·7	7·1	7·9	6·1
50—60	4·4	4·9	3·7	4·9	5·4	4·2	4·5	4·8	4·2	4·7	5·3	4·0	6·9	7·9	5·7	7·1	7·9	6·1
60 and Over	2·5	3·0	1·9	2·7	3·1	2·3	2·7	2·8	2·6	3·5	3·8	3·0	4·0	4·4	3·6	4·3	4·5	4·3
Darjeeling																		
Total	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100 0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0
0—5	14·9	13·8	16·2	14·4	14·0	14·7	14·9	14·0	16·0	11·9	11·1	12·9	13·1	12·2	14·1	14·0	13·1	15·0
5—10	11·9	11·4	12·5	12·9	12·2	13·7	12·5	12·1	12·9	13·4	12·9	14·0	13·6	12·9	14·4	12·4	11·9	13·0
10—15	13·0	12·6	13·4	11·3	10·6	12·0	11·4	11·1	11·7	12 3	12·4	12·3	11·5	11·5	11·6	11·2	10·8	11·5
15—20	11·2	11·1	11·3	9·7	9·2	10 2	9·9	9·5	10·3	10·0	9·9	10·1	9·0	8·8	9·2	9·6	9·4	9·8
20—30	20·0	19·7	20·3	18·7	18·3	19·2	19·6	19·8	19·5	18·8	18·5	19·1	17·4	18·1	16·5	17·7	18·3	17·1
30—40	12·8	13·8	11·6	14·6	15·2	14·0	14·2	15·3	12·9	14·5	15·4	13·5	17·4	18·1	16·5	17·7	18·3	17·1
40—50	8·5	9·6	7·2	8·6	10·1	7·0	8·6	9·5	7·6	9·2	9·9	8·3	6·8	7·2	6·5	6·7	7·2	6·1
50—60	4·4	4·7	4·2	5·7	6·2	5·2	5·1	5·2	5·0	5·2	5·5	4·8	6·8	7·2	6·5	6·7	7·2	6·1
60 and Over	3·3	3·3	3·3	4·1	4·2	4·0	3·8	3·5	4·1	4 7	4·4	5·0	4·4	4·0	4·7	4·0	3·8	4·3
Cooch Behar																		
Total	100·0	100·0	100·0	100·0	100·0	100 0	100 0	100·0	100 0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0
0—5	15·4	13·9	17·2	13·3	11 8	15·1	15·4	14·1	16·8	13·7	12 3	15·3	14·0	12·7	15·6	13·8	12·6	15·2
5—10	14·2	13·6	14·8	14·0	13·9	14·1	13·8	13·7	13·9	16·3	15·9	16·8	16·0	15·2	16·9	16·2	14·9	17·7
10—15	10·6	10·9	10·1	10·2	10·6	9·9	11·9	11·9	11·9	10·1	10 8	9·3	9·3	10·1	8·5	9·5	10·5	8·2
15—20	10·5	9·4	11·7	8·5	8·4	8·6	9·7	8·7	10 8	9·5	8 6	10·5	9·0	8·3	9·7	9·1	8·3	10·0
20—30	19·9	19·5	20·5	18·9	17·0	21·0	19·0	18·3	19·8	18·4	17·4	19·4	16·2	16·3	16·1	16·2	16·4	15·9
30—40	14·0	15·8	11·8	16·1	17·2	14·7	14·2	15·5	12 7	14·0	15·1	12·8	16·2	16·3	16·1	16·2	16·4	15·9
40—50	8·5	9·5	7·4	10·0	11·4	8·4	8·5	9·6	7·4	9·0	10·2	7·7	7·4	8·2	6·4	7·3	8·1	6·5
50—60	4·4	4·7	4·2	5·5	5·8	5·1	4·6	4·9	4·2	5·1	5·5	4·6	7·4	8·2	6·4	7·3	8·1	6·5
60 and Over	2·5	2·7	2·3	3·5	3·9	3·1	2·9	3·3	2·5	3·9	4·2	3·6	4·5	4·7	4·3	4·4	4·7	4·1
Sikkim																		
Total	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0
0—5	15·6	18·9	17·6	13·6	12·5	14·9	15·6	15·3	16·0	12·0	11·9	12·0	13·8	13·5	14·2	12·6	12·3	13·1
5—10	14·1	12·8	15·7	13·0	13·9	16·2	13·2	13·2	13·2	14·0	13·8	14·3	14·3	14·4	14·2	12·9	12·9	13·0
10—15	12·7	13·0	12·3	12·9	13·2	12·5	12·1	12·4	11·8	12 6	12·9	12·3	12·0	12·4	11·7	11·7	12·4	10·9
15—20	9·9	10·6	9·0	10·4	10·4	10·3	9·8	9·8	9·7	9·5	9·8	9·1	8·5	8·5	8·6	9·6	9·7	9·5
20—30	16·3	19·3	12·9	16·3	17·5	15·1	17·6	17·5	17·6	16·6	16·2	17·0	15·3	15·3	15·2	15·8	15·6	16·0
30—40	11·9	12·0	11·7	14·0	15·2	12·7	11·9	11·8	12·0	12·7	12·7	12·8	15·3	15·3	15·2	15·8	15·6	16·0
40—50	8·9	9·1	8·8	7·9	8·5	7·3	8·3	8·5	8·1	9·7	9·6	9·7	7·2	7·3	7·0	7·6	7·5	7·6
50—60	6·3	5·5	7·1	5·3	5·0	5·6	6·2	6·5	6·0	6·5	6·9	6·2	7·2	7·3	7·1	7·6	7·5	7·6
60 and Over	4·3	3·8	4·9	4·6	3·8	5·4	5·3	5·0	5·6	6·4	6·2	6·6	6·4	6·0	6·8	6·4	6·5	6·3

PERCENTAGE VARIATIONS IN POPULATION FROM DECADE TO DECADE, 1872—1951

STATEMENT I.40

State, District and Police Station	Percentage Variation										
	1901-51	1921-51	1872-1921	1941-51	1931-41	1921-31	1911-21	1901-11	1891-1901	1881-91	1872-81
WEST BENGAL	+56·7	+51·3	+20·5	+13·6	+23·6	+7·7	—2·3	+6·1	+8·1	+5·9	+1·7
BURDWAN DIVISION	+34·7	+37·9	+5·9	+7·9	+19·0	+7·4	—4·9	+2·8	+7·2	+4·0	—2·8
1 BURDWAN DISTRICT	+43·4	+52·8	—3·3	+15·9	+20·0	+9·8	—6·5	+0·4	+9·8	+0·0	—6·2
Sadar Subdivision	*+17·5*	*+36·0*	*—18·5*	*+8·7*	*+18·0*	*+6·0*	*—11·1*	*—2·8*	*+10·1*	*—3·1*	*—11·7*
Burdwan	+44·3	+62·5	—11·0	+8·7	+39·8	+6·9	—9·1	—2·3	+12·8	—0·7	—10·5
Khandaghosh	—2·7	+18·6	—25·1	+5·7	+8·4	+3·5	—16·0	—2·2	+10·4	+1·7	—18·7
Raina	+5·5	+30·5	—16·5	+15·5	+11·1	+1·7	—16·3	—3·4	+10·5	—1·9	—4·7
Jamalpur	+20·8	+27·5	—25·8	+6·4	+19·1	+0·5	—1·3	—4·0	—7·6	+0·1	—15·3
Memari	+25·6	+41·4	—11·0	+9·5	+20·8	+6·9	—9·1	—2·3	+12·8	—0·7	—10·5
Galsi	+14·8	+38·7	—15·5	+9·5	+10·1	+15·0	—14·5	—3·2	+14·8	+2·7	—13·4
Bhatar	+20·7	+35·8	—11·0	+9·7	+15·8	+6·9	—9·1	—2·3	+12·8	—0·7	—10·5
Ausgram	+3·3	+19·4	—31·6	+2·7	+10·6	+5·0	—11·0	—2·7	+12·5	—19·9	—12·3
Asansol Subdivision	*+107·4*	*+90·4*	*+69·7*	*+27·0*	*+30·8*	*+14·6*	*+4·0*	*+4·7*	*+19·6*	*+9·1*	*+19·4*
Salanpur	+131·1	+107·1	+171·3	+78·0	+10·8	+4·9	+5·7	+5·6	+31·8	+28·8	+43·1
Kulti	+150·5	+124·5	+171·3	+26·6	+53·7	+15·4	+5·7	+5·6	+31·8	+28·8	+43·1
Hirapur	+179·5	+150·4	+171·3	+37·6	+57·8	+15·4	+5·7	+5·6	+31·8	+28·8	+43·1
Asansol	+179·5	+150·4	+171·3	+37·6	+57·8	+15·4	+5·7	+5·6	+31·8	+28·8	+43·1
Barabani	+40·9	+26·3	+171·3	+19·1	+5·8	+0·2	+5·7	+5·6	+31·8	+28·8	+43·1
Jamuria	+106·7	+84·7	+43·3	+27·2	+17·8	+23·3	+5·6	+6·0	+12·1	+0·9	+13·2
Raniganj	+98·5	+77·4	+43·3	+26·0	+28·1	+9·9	+5·6	+5·9	+12·1	+0·9	+13·2
Ondal	+129·4	+105·0	+43·3	+14·0	+34·2	+34·0	+5·6	+5·9	+12·1	+0·9	+13·2
Faridpur	+41·8	+26·8	+43·3	+0·8	+18·6	+6·0	+5·6	+6·0	+12·1	+0·0	+13·2
Kanksa	+35·0	+62·2	—21·6	+29·6	+11·2	+12·4	—12·8	—4·6	+6·3	—10·3	—1·3
Kalna Subdivision	*+35·0*	*+48·5*	*—39·3*	*+23·4*	*+13·2*	*+6·2*	*—8·6*	*—0·5*	*—2·2*	*—2·6*	*—17·2*
Kalna	+35·8	+45·1	—30·8	+21·3	+13·9	+5·1	—5·6	—0·9	+0·2	—2·6	—24·2
Purbasthali	+38·4	+60·8	—20·4	+43·4	+10·1	+1·9	—11·2	—3·1	—1·9	—6·1	+0·5
Manteswar	+29·8	+39·1	—32·1	+6·7	+15·5	+12·9	—9·7	+3·3	—5·8	+2·0	—24·2
Katwa Subdivision	*+26·6*	*+33·9*	*+0·1*	*+5·0*	*+11·6*	*+14·3*	*—6·5*	*+3·3*	*+7·9*	*+0·0*	*—1·9*
Katwa	+38·3	+41·0	+12·8	+11·0	+13·4	+12·1	—4·3	+2·4	+13·5	—1·5	+2·9
Mangalkot	+26·0	+33·6	+11·2	+8·4	+4·8	+17·6	—7·0	+2·4	—1·5	—2·6	—1·8
Ketugram	+14·4	+25·7	—2·2	—4·6	+15·6	+14·0	—13·4	+5·1	+10·9	+4·4	—7·1

STATEMENT I.44

State, District and Police Station	1901-51	1921-51	1872-1921	1941-51	1931-41	1921-31	1911-21	1901-11	1891-1901	1881-91	1872-81
2 BIRBHUM DISTRICT	+17·6	+25·3	—0·2	+1·8	+10·6	+11·3	—9·4	+3·7	+13·6	+0·5	—7·0
Sadar Subdivision	*+18·1*	*+27·8*	*—9·5*	*+2·3*	*+10·2*	*+13·4*	*—9·1*	*+1·6*	*+15·0*	*—2·8*	*—12·2*
Suri	+17·0	+28·7	—12·0	+4·2	+13·6	+8·7	—9·0	—0·1	+14·4	—4·6	—11·3
Sainthia	+37·2	+50·9	—12·0	+8·5	+8·0	+28·7	—9·0	—0·1	+14·4	—4·6	—11·3
Rajnagar	+11·3	+22·4	—12·0	—3·0	+12·9	+11·8	—9·0	—0·1	+14·4	—4·6	—11·3
Mahammadbazar	+69·1	+86·0	—12·0	+3·0	+12·2	+61·0	—9·0	—0·1	+14·4	—4·6	—11·3
Dubrajpur	+8·7	+19·6	—12·0	+0·0	+10·4	+8·3	—9·0	—0·1	+14·4	—4·6	—11·3
Khoyrasol	+29·5	+42·4	—12·0	+0·5	+11·5	+27·1	—9·0	—0·1	+14·4	—4·6	—11·3
Illambazar	+17·9	+29·7	—12·0	—0·8	+1·6	+28·7	—9·0	—0·1	+14·4	—4·6	—11·3
Bolpur	+45·7	+60·3	—12·0	+14·2	+9·0	+22·3	—9·0	—0·1	+14·4	—4·6	—11·3
Labhpur	+3·9	+8·4	—6·6	—0·7	+7·9	+11·0	—10·0	+6·5	+11·6	+2·5	—14·8
Nanoor	—15·6	—12·5	—1·6	—5·5	+14·1	—18·0	—8·9	+5·9	+20·6	+2·5	—14·8
Rampurhat Subdivision	*+17·0*	*+21·6*	*+16·6*	*+1·0*	*+11·3*	*+8·2*	*—9·9*	*+6·7*	*+11·7*	*+5·6*	*+2·7*
Rampurhat	+27·7	+29·5	+8·5	+1·3	+14·2	+12·0	—8·2	+7·4	+10·0	+6·4	—6·0
Mayureswar	—2·1	+3·7	—12·7	—2·1	+13·2	—6·4	—8·8	+3·5	+8·6	—2·7	—12·4
Nalhati	+22·3	+21·8	+54·8	+3·2	+7·6	+9·6	—7·0	+7·9	+11·9	+10·7	+24·5
Murarai	+20·0	+31·4	+47·4	+1·4	+9·8	+18·1	—15·6	+8·2	+17·2	+10·7	+24·5

STATEMENT I.48

State, District and Police Station	1901-51	1921-51	1872-1921	1941-51	1931-41	1921-31	1911-21	1901-11	1891-1901	1881-91	1872-81
3 BANKURA DISTRICT	+18·2	+29·3	+5·3	+2·3	+16·0	+9·0	—10·4	+2·0	+4·4	+2·7	+7·6
Sadar Subdivision	*+35·6*	*+39·0*	*+24·3*	*+3·1*	*+18·8*	*+13·6*	*—7·0*	*+4·9*	*+2·8*	*+7·0*	*+15·8*
Bankura	+58·7	+53·5	+31·1	+1·0	+28·1	+18·7	—2·8	+6·4	+5·0	+10·2	+8·6
Onda	+8·9	+26·9	—1·4	—1·6	+14·4	+12·7	—12·5	—1·9	+0·4	+2·6	+11·5
Chhatna	+49·9	+44·9	+31·1	+9·0	+21·7	+9·3	—2·8	+6·4	+5·9	+10·2	+8·6
Gangajalghati	+32·5	+41·7	+9·2	—1·4	+27·7	+12·5	—8·3	+2·2	+4·1	+3·2	+8·5
Barjora	+15·4	+23·2	+9·2	—10·9	+24·5	+11·0	—8·3	+2·2	+4·1	+3·2	+8·5
Mejhia	+20·3	+28·3	+9·2	—2·3	+17·4	+11·8	—8·3	+2·2	+4·1	+3·2	+8·5
Saltora	+37·2	+46·4	+9·2	+4·0	+18·4	+18·9	—8·3	+2·2	+4·1	+3·2	+8·5
Khatra	+50·7	+44·9	+53·7	+7·1	+15·1	+17·5	—6·1	+10·8	+1·2	+9·9	+32·9
Indpur	+56·7	+50·7	+53·7	+7·9	+18·8	+17·6	—6·1	+10·8	+1·2	+9·9	+32·9
Ranibandh	+42·1	+36·6	+53·7	+10·1	+9·9	+13·0	—6·1	+10·8	+1·2	+9·9	+32·9
Raipur	+37·5	+32·2	+53·7	+9·0	+9·5	+10·7	—6·1	+10·8	+1·2	+9·9	+32·9
Simlapal	+30·6	+39·3	+26·1	+3·4	+20·0	+12·3	—7·1	+1·0	+3·0	+13·2	+15·3
Taldangra	+12·6	+31·2	—1·4	+6·9	+13·7	+8·0	—12·5	—1·9	+4·4	+2·6	+11·5
Vishnupur Subdivision	*—12·5*	*+8·7*	*—20·6*	*+0·3*	*+9·2*	*—0·7*	*—16·9*	*—3·1*	*+7·2*	*—4·4*	*—3·7*
Vishnupur	—2·0	+14·5	—17·2	+1·5	+13·1	—0·2	—12·1	—2·6	+6·4	—4·2	—5·1
Jaypur	—11·4	+3·6	—17·2	—2·8	+6·8	—0·2	—12·1	—2·6	+6·4	—4·2	—5·1
Kotulpur	—6·6	+9·1	—17·2	+3·8	+5·4	—0·2	—12·1	—2·6	+6·4	—4·2	—5·1
Sonamukhi	—2·1	+14·4	—17·2	—1·4	+16·2	—0·2	—12·1	—2·6	+6·4	—4·2	—5·1
Patrasair	—8·0	+6·4	—17·2	—0·5	+7·2	—0·2	—12·1	—2·6	+6·4	—4·2	—5·1
Indas	—37·9	+2·7	—35·3	+1·0	+5·2	—3·4	—36·0	—5·3	+10·4	—5·3	+2·2

PERCENTAGE VARIATIONS IN POPULATION, 1872—1951

STATEMENT I.52

State, District and Police Station	Percentage Variation										
	1901-51	1921-51	1872-1921	1941-51	1931-41	1921-31	1911-21	1901-11	1891-1901	1881-91	1872-81
4 MIDNAPUR DISTRICT	+20·4	+26·0	+4·8	+5·3	+14·0	+5·0	—5·5	+1·2	+0·0	+4·5	—1·1
Sadar Subdivision	*+15·3*	*+26·3*	*—19·9*	*+10·1*	*+11·6*	*+2·7*	*—10·3*	*+1·8*	*+2·2*	*—8·3*	*—6·3*
Midnapur	+20·5	+35·8	—3·5	+4·9	+19·8	+8·1	—11·1	—0·2	+9·1	+6·3	—6·1
Salbani	+12·2	+16·1	+15·6	+9·5	+9·8	—3·4	—1·3	—2·1	+9·7	+3·5	+5·4
Keshpur	—0·8	+18·6	—33·5	+5·8	+9·9	+2·0	—13·1	—3·7	+3·3	—12·4	—12·2
Garhbeta	+12·8	+27·0	—18·6	+11·3	+10·5	+3·3	—6·4	—5·1	+5·3	—8·4	—5·0
Debra	+1·8	+20·1	—48·0	+7·1	+12·2	—0·1	—13·8	—15·8	—1·3	—2·0	—36·7
Sabang	—20·3	—2·1	—41·8	+3·7	+0·4	—6·0	—15·3	—3·9	+0·5	—24·2	—6·1
Pingla	—16·7	+2·2	—41·8	+5·4	+1·7	—4·7	—15·3	—3·9	+0·5	—24·2	—6·1
Khargpur (Local)	+74·6	+36·0	+21·0	+12·2	+7·3	+13·0	—0·1	+28·6	—5·5	+6·3	—6·1
Khargpur (Town)	+223·3	+151·9	+21·0	+48·7	+50·0	+13·0	—0·1	+28·6	—5·5	+6·3	—6·1
Narayangarh	—10·5	+5·4	—22·3	+5·2	+8·8	—8·0	—18·4	+4·1	+0·9	—9·1	—0·3
Dantan	—2·4	+6·1	+1·1	—1·7	+4·9	+2·8	—10·0	+2·2	+2·3	—6·0	+14·3
Mohanpur	—1·4	+7·2	+1·1	—1·0	+9·8	—1·4	—10·0	+2·2	+2·3	—6·0	+14·3
Keshiari	+28·0	+50·7	—22·3	+5·7	+9·1	+30·6	—18·4	+4·1	+0·9	—9·1	—0·3
Contai Subdivision	*+22·7*	*+20·6*	*+38·7*	*—2·1*	*+19·5*	*+3·2*	*—0·8*	*+2·5*	*+10·6*	*+13·1*	*+9·0*
Contai	+10·6	+8·3	+43·4	—5·3	+20·8	—5·3	—0·1	+2·3	+17·1	+12·9	+6·3
Khedgree	+60·6	+53·0	+67·8	+0·4	+19·2	+27·8	+1·6	+3·3	+14·7	+19·1	+17·0
Bhagwanpur	+16·4	+10·9	+41·1	+6·5	+14·9	—9·4	+1·6	+3·3	+8·6	+15·3	+7·4
Pataspur	+1·5	+6·7	+16·3	—4·7	+11·1	+0·8	—7·6	+2·8	+6·2	+7·1	+7·6
Ramnagar	+37·8	+36·2	+39·4	—4·9	+28·4	+11·5	+0·1	+1·1	+8·5	+1·2	+13·8
Egra	+43·5	+40·5	+37·3	—3·7	+23·3	+18·3	—0·1	+2·3	+5·4	+16·4	+9·5
Tamluk Subdivision	*+35·1*	*+32·3*	*+27·4*	*+4·7*	*+17·1*	*+7·9*	*—0·9*	*+3·1*	*+0·1*	*+11·6*	*+2·4*
Tamluk	+44·9	+43·6	+93·2	+7·5	+22·1	+9·4	—1·6	+2·5	+10·0	+67·3	+3·5
Panskura	+23·1	+27·5	—15·6	+11·1	+9·9	+4·4	—3·9	+0·4	+4·1	—3·0	—13·3
Moyna	+39·0	+37·8	+93·2	+9·5	+17·6	+7·0	—1·6	+2·5	+16·0	+67·3	+3·5
Mahisadal	+45·8	+30·0	+44·3	+4·2	+19·9	+8·9	+1·6	+5·5	+8·3	+11·2	+11·0
Nandigram	+28·3	+23·5	+18·7	—3·8	+18·1	+8·6	+0·2	+3·7	+12·6	—9·4	+12·0
Sutahata	+40·7	+32·7	+63·8	+2·3	+17·2	+10·6	+0·9	+5·1	+11·6	+15·9	+19·5
Ghatal Subdivision	*—4·2*	*+15·4*	*—21·9*	*+5·7*	*+7·8*	*+1·3*	*—10·5*	*—7·3*	*—0·9*	*+14·1*	*—16·9*
Ghatal	—8·0	+19·0	—30·7	+0·3	+11·4	+6·5	—14·6	—9·5	—0·5	+10·0	—18·2
Daspur	+7·4	+17·9	—12·7	+9·0	+8·7	—0·6	—3·3	—5·7	—2·4	+16·1	—15·5
Chandrakona	—15·5	+8·6	—25·3	+5·9	+3·1	—0·5	—16·2	—7·2	+0·7	+15·4	—17·4
Jhargram Subdivision	*+28·2*	*+31·9*	*+43·3*	*+8·3*	*+9·5*	*+11·1*	*—4·5*	*+1·8*	*+10·7*	*+12·1*	*+18·8*
Jhargram	+47·7	+46·8	+86·2	+17·7	+13·0	+10·4	+1·6	—1·0	+29·7	+18·8	+20·1
Jamboni	+31·3	+30·6	+86·2	+8·6	+8·9	+10·4	+1·6	—1·0	+29·7	+18·8	+20·1
Binpur	+30·4	+29·8	+42·1	+9·3	+9·0	+8·9	—6·0	+6·9	+2·4	+13·0	+22·1
Gopiballavpur	+19·4	+28·3	+26·3	+4·2	+8·8	+13·1	—6·9	+0·0	+7·4	+8·6	+16·3
Sankrail	+19·4	+28·3	+26·3	+4·2	+8·8	+13·1	—6·9	+0·0	+7·4	+8·6	+16·3
Nayagram	+19·4	+28·3	+26·3	+4·2	+8·8	+13·1	—6·9	+0·0	+7·4	+8·6	+16·3

STATEMENT I.56

5 HOOGHLY DISTRICT	+48·2	+43·9	—6·7	+12·8	+23·6	+3·2	—0·9	+3·9	+1·4	+2·1	—12·5
Sadar Subdivision	*+47·4*	*+44·2*	*—13·2*	*+13·9*	*+22·8*	*+3·0*	*+1·0*	*+1·2*	*—0·4*	*+0·5*	*—15·1*
Chinsurah	+99·6	+90·6	—21·7	+17·9	+46·6	+10·2	+7·8	—2·8	—0·2	+4·2	—28·1
Dhaniakhali	+0·1	+23·6	—34·0	+7·8	+19·0	—3·6	—20·0	+1·2	—1·0	+2·3	—19·5
Polba	+88·5	+25·7	+98·9	+10·6	+14·2	—0·6	+48·3	+1·2	—1·0	—2·9	+38·0
Magra	+148·3	+137·1	—21·7	+24·8	+44·5	+31·5	+7·8	—2·8	—0·2	+4·2	—28·1
Balagarh	+52·2	+50·7	—20·4	+30·0	+12·2	+3·4	—1·5	+2·6	—5·0	—3·1	—20·9
Pandua	+25·1	+25·9	—11·6	+5·0	+19·1	+0·7	—4·0	+3·5	+4·1	—0·3	—14·3
Serampur Subdivision	*+76·5*	*+51·2*	*+22·5*	*+15·0*	*+26·5*	*+3·9*	*+4·6*	*+11·6*	*+3·3*	*+13·6*	*—10·6*
Serampur	+246·4	+90·9	+186·3	+23·4	+38·3	+11·8	+26·1	+44·0	+18·7	+13·4	+17·1
Uttarpara	+191·0	+84·1	+164·4	+29·4	+29·8	+9·6	+21·6	+30·1	+20·8	+23·5	+12·2
Bhadreswar	+152·2	+45·6	+178·8	+15·3	+22·1	+3·4	+24·6	+39·0	+19·4	+16·8	+15·4
Haripal	+48·6	+44·4	—10·7	+14·6	+25·9	+0·0	—3·8	+7·0	+1·9	+11·9	—24·0
Tarakeswar	+52·7	+48·4	—10·7	+16·2	+26·4	+1·0	—3·8	+7·0	+1·9	+11·9	—24·0
Singur	+47·6	+48·6	+8·2	+16·0	+22·2	+4·9	—0·8	+0·1	—4·0	+14·2	—0·6
Chanditala	+31·0	+31·5	+4·1	+4·7	+21·2	+8·6	—3·5	+8·3	+0·8	+15·6	—10·4
Jangipara	+23·8	+29·7	—20·5	+6·5	+26·9	—4·0	—5·9	+1·5	—3·7	+8·8	—20·5
Arambag Subdivision	*+13·1*	*+31·1*	*—29·4*	*+7·5*	*+19·6*	*+2·0*	*—10·8*	*—3·2*	*+0·8*	*—7·9*	*—11·9*
Arambag	+22·5	+38·3	—16·7	+13·0	+20·2	+1·8	—10·0	—1·6	+2·3	+7·4	—14·4
Pursura	+34·0	+51·3	—16·7	+5·2	+35·1	+6·5	—10·0	—1·6	+2·3	+7·4	—14·4
Goghat	—18·9	+4·1	—38·9	+5·1	+5·2	—5·8	—15·2	—8·1	—1·8	—0·1	—25·1
Khanakul	+31·8	+41·7	—32·1	+6·5	+24·1	+7·3	—7·5	—0·1	+1·9	—27·0	—1·4

PERCENTAGE VARIATIONS IN POPULATION, 1872—1951

STATEMENT I.60

District and Police Station	Percentage Variation 1901-51	1921-51	1872-1921	1941-51	1931-41	1921-31	1911-21	1901-11	1891-1901	1881-91	1872-81
6 HOWRAH DISTRICT	+89·5	+61·6	+67·4	+8·1	+35·6	+10·2	+5·7	+10·9	+11·4	+20·2	+6·6
Sadar Subdivision	*+116·1*	*+78·9*	*+74·7*	*+11·8*	*+45·5*	*+10·0*	*+5·8*	*+14·1*	*+17·3*	*+17·5*	*+4·9*
Howrah Bantra Golabari Mallipanchghara & Sibpur (Part)	+175·6	+122·0	+132·7	+14·3	+68·7	+15·1	+9·1	+13·8	+35·2	+28·4	+8·0
Sibpur (outside Howrah City)	+21·2	—2·4	+132·9	—10·3	+59·5	—31·8	+9·0	+13·9	+35·0	+28·5	+8·2
Bally	+275·0	+144·2	+228·9	+31·7	+49·0	+24·4	+0·2	+53·2	+70·0	+12·7	+8·0
Domjur	+44·9	+23·7	+47·7	—0·9	+22·9	+1·6	+5·8	+10·8	+1·6	+15·0	+7·9
Jagacha	+135·6	+101·1	+47·7	+27·5	+46·4	+7·7	+5·8	+10·8	+1·6	+15·0	+7·9
Sankrail	+46·1	+24·8	+47·7	+7·9	+27·8	—9·5	+5·8	+10·8	+1·6	+15·0	+7·9
Jagatballavpur	+94·0	+75·6	+27·4	—1·7	+28·0	+39·5	+2·5	+7·7	+8·6	+9·9	—3·4
Panchla	+42·6	+29·1	+27·4	+7·3	+23·3	—2·4	+2·5	+7·7	+8·6	+9·9	—3·4
Uluberia Subdivision	*+62·3*	*+42·7*	*+60·2*	*+3·5*	*+25·0*	*+10·4*	*+5·6*	*+7·7*	*+5·9*	*+22·7*	*+8·3*
Amta	+37·9	+27·3	+63·9	—2·0	+24·9	+4·0	+2·1	+6·1	+2·4	+48·3	—0·5
Bagnan	+71·8	+56·4	+37·0	+8·6	+23·5	+16·6	+2·5	+7·1	+5·2	+8·3	+9·4
Uluberia	+108·0	+60·1	+80·3	+6·7	+28·1	+17·1	+14·8	+13·2	+10·6	+7·8	+16·4
Shyampur	+63·6	+50·0	+52·4	+7·0	+22·3	+14·7	+4·1	+4·8	+8·7	+12·0	+14·0
Bauria	+51·5	+16·6	+80·3	—3·8	+27·5	—4·9	+14·8	+13·2	+10·6	+7·8	+16·4

STATEMENT I.64

District and Police Station	1901-51	1921-51	1872-1921	1941-51	1931-41	1921-31	1911-21	1901-11	1891-1901	1881-91	1872-81
PRESIDENCY DIVISION	**+80·5**	**+64·2**	**+39·0**	**+18·7**	**+28·1**	**+8·0**	**+0·3**	**+9·6**	**+9·1**	**+8·0**	**+7·3**
7 24-PARGANAS DISTRICT	+118·8	+74·8	+55·5	+25·6	+27·0	+9·6	+6·4	+15·0	+8·4	+10·0	+6·6
Sadar Subdivision	*+116·1*	*+76·3*	*+54·3*	*+23·5*	*+29·5*	*+10·2*	*+7·0*	*+14·6*	*+11·5*	*+9·5*	*+3·0*
Bishnupur	+70·9	+48·2	+30·5	+9·5	+24·3	+8·9	+5·6	+9·3	+6·2	+10·3	—3·4
Budge-Budge	+73·7	+33·4	+86·6	-11·0	+34·3	+11·5	+15·0	+16·5	+13·9	+15·6	+5·8
Behala	+271·2	+199·2	+27·2	+63·2	+57·7	+16·3	+6·1	+17·0	+1·2	+11·7	—9·3
Metiabruz	+239·7	+129·6	+51·7	+25·4	+56·0	+17·3	+2·0	+45·1	+1·2	+11·7	—9·3
Tollyganj	+562·6	+390·0	+38·6	+141·3	+84·8	+9·9	+13·1	+19·5	+1·2	+11·7	—9·3
Sonarpur	+87·4	+58·5	+62·4	+8·4	+26·2	+15·7	+5·7	+11·9	+15·7	+11·9	+6·0
Baruipur	+50·7	+27·4	+62·4	+4·4	+16·2	+5·0	+5·7	+11·9	+15·7	+11·9	+6·0
Jaynagar	+81·6	+49·7	+91·6	+12·4	+19·3	+11·7	+5·7	+14·7	+18·6	+19·5	+11·4
Canning	+92·7	+62·9	+62·4	+25·0	+14·4	+13·9	+5·7	+11·9	+15·7	+11·9	+6·0
Bhangar	+48·6	+23·2	+37·5	+0·8	+23·1	—0·7	+5·5	+14·4	+14·0	—13·8	+16·0
Mahe. tala	+158·5	+136·7	+12·0	+70·8	+30·5	+6·2	+8·4	+0·8	+1·2	+11·7	—9·3
Basirhat Subdivision	*+91·1*	*+55·6*	*+71·0*	*+20·1*	*+20·7*	*+7·3*	*+7·0*	*+14·7*	*+7·6*	*+7·5*	*+29·5*
Basirhat	+58·7	+38·9	+37·6	+10·2	+17·4	+7·3	+0·6	+13·6	+10·7	+2·9	+5·8
Baduria	+18·5	+14·8	+20·1	+7·1	+9·4	—2·0	—3·9	+7·3	+4·6	—2·9	+14·6
Swarupnagar	+9·5	+6·1	+20·1	+7·7	+6·3	—7·3	—3·9	+7·3	+4·6	—2·9	+14·6
Haroa	+98·6	+37·5	+170·5	+12·8	+19·7	+1·9	+18·7	+21·7	+8·5	+22·0	+41·5
Hasnabad	+142·2	+67·7	+170·5	+25·1	+27·9	+4·8	+18·7	+21·7	+8·5	+22·0	+41·5
Sandeshkhali	+318·4	+186·3	+170·5	+46·0	+36·7	+43·4	+18·7	+21·7	+8·5	+22·0	+41·5
Barasat Subdivision	*+49·1*	*+40·6*	*+45·0*	*+24·2*	*+16·9*	*—3·1*	*—4·3*	*+10·8*	*+30·4*	*+3·6*	*+1·2*
Barasat	+55·2	+42·0	+94·5	+20·6	+19·7	—1·6	—3·2	+13·0	+88·0	+3·3	—5·9
Habra	+57·5	+57·6	+4·8	+57·3	+10·6	—9·4	—5·0	+5·1	—0·9	+3·4	+2·4
Deganga	+30·0	+22·9	+21·2	+11·0	+12·6	—1·6	—0·2	+12·7	—1·0	+4·2	+11·1
Amdanga	+33·1	+21·8	+94·5	+12·8	+11·0	—2·7	—3·2	+13·0	+88·0	+3·3	—5·9
Rajarhat	+65·1	+51·1	+94·5	+8·7	+34·3	+3·5	—3·2	+13·0	+88·0	+3·3	—5·9
Bangaon Subdivision	*+38·5*	*+57·7*	*—13·0*	*+56·8*	*+11·9*	*—10·1*	*—9·5*	*—3·0*	*—4·0*	*—8·2*	*+12·4*
Bangaon	+41·6	+62·6	—14·1	+61·9	+10·1	—8·8	—10·1	—3·1	—3·8	—7·4	+10·7
Gaighata	+30·8	+46·0	—11·3	+44·7	+16·6	—13·4	—7·9	—2·8	—4·5	—9·9	+16·6
Barrackpur Subdivision	*+325·2*	*+153·1*	*+60·1*	*+51·4*	*+41·6*	*+18·1*	*+18·5*	*+41·7*	*—15·6*	*+21·3*	*—7·2*
Barrackpur	+63·7	+37·9	+41·6	+47·5	—0·0	—6·4	+2·2	+16·2	+18·6	+10·7	—9·1
Dum Dum	+805·2	+272·8	—25·2	+119·8	+37·2	+23·6	—4·6	+14·0	—56·2	+70·7	—7·9
Titagarh	+373·1	+64·9	+242·4	+25·2	+46·9	—10·3	+18·0	+143·1	+18·6	+10·7	—9·1
Jagaddal	+306·1	+105·1	+50·9	+17·8	+36·1	+27·9	+27·6	+55·2	—23·8	+11·8	—10·6
Naihati	+388·3	+224·0	+14·8	+46·1	+56·6	+41·7	+26·4	+19·2	—23·8	+11·8	—10·6
Bijpur	+740·5	+227·7	+95·4	+80·3	+35·5	+34·2	+28·5	+90·7	—23·8	+11·8	—10·6
Khardah	+253·8	+269·6	+14·2	+83·5	+40·1	+43·7	—1·9	—2·4	+18·6	+10·6	—9·1
Noapara	+275·9	+163·2	+46·6	+59·3	+55·5	+6·2	+21·8	+17·3	—4·8	+18·5	—9·1
Baranagar	+299·4	+180·2	+99·6	+59·2	+43·9	+22·3	+25·5	+13·6	+12·7	+14·3	+8·6
Diamond Harbour Subdivision	*+95·6*	*+60·9*	*+81·2*	*+10·1*	*+26·0*	*+16·0*	*+8·6*	*+11·9*	*+14·4*	*+17·0*	*+11·4*
Diamond Harbour	+82·1	+63·9	+60·8	+11·7	+25·9	+16·5	+0·0	+11·1	+11·4	+20·1	+8·1
Falta	+70·1	+53·2	+34·8	+8·9	+24·0	+13·5	+1·5	+9·3	+5·2	+14·6	+0·7
Mathurapur	+180·2	+87·1	+148·4	+15·4	+31·9	+22·9	+23·3	+21·5	+23·0	+16·2	+16·0
Kakdwip	+142·9	+88·2	+132·0	+12·7	+31·9	+26·6	+14·5	+12·7	+26·8	+18·0	+20·2
Sagar	+241·6	+164·7	+132·0	+14·5	+42·6	+62·0	+14·6	+12·7	+26·8	+18·0	+20·2
Kulpi	+75·7	+86·2	+132·0	+6·6	+16·9	+9·3	+14·5	+12·7	+26·8	+18·0	+20·2
Magrahat	+47·0	+35·9	+43·2	+4·9	+22·2	+6·1	+0·8	+7·4	+4·8	+16·0	+8·9
24-PARGANAS FOREST DIVISION	+13·7	..	..	+98·3	+66·8	..	..	..	—64·2	..	..

PERCENTAGE VARIATIONS IN POPULATION, 1872—1951

STATEMENT I.72

State, District and Police Station	Percentage Variation										
	1901-51	1921-51	1872-1921	1941-51	1931-41	1921-31	1911-21	1901-11	1891-1901	1881-91	1872-81
9 **Nadia District**	+ 48·1	+ 60·9	— 4·7	+36·3	+16·4	+ 1·4	— 8·3	+ 0·4	+ 0·0	— 4·3	+ 8·2
Sadar Subdivision	*+ 36·9*	*+ 52·6*	*— 4·0*	*+22·4*	*+18·1*	*+ 5·6*	*— 9·7*	*— 0·6*	*+ 1·5*	*— 3·1*	*+ 8·7*
Krishnagar	+112·2	+120·2	+ 4·6	+72·5	+20·9	+ 5·7	— 7·6	+ 4·2	— 2·5	— 3·9	+16·0
Nabadwip	+158·1	+167·8	+ 4·6	+68·6	+35·6	+17·1	— 7·6	+ 4·2	— 2·5	— 3·9	+16·0
Chapra	+ 26·3	+ 31·1	+ 4·6	+10·5	+11·6	+ 6·3	— 7·6	+ 4·2	— 2·5	— 3·9	+16·0
Krishnaganj	+ 2·7	+ 35·8	— 4·1	+13·5	+18·2	+ 1·2	—20·3	— 5·1	+15·4	— 0·1	—10·1
Nakashipara	+ 44·1	+ 54·3	— 5·4	+22·3	+17·8	+ 7·3	— 5·8	— 1·0	+ 0·6	— 5·7	+ 6·9
Kaliganj	+ 46·4	+63·0	— 0·4	+21·9	+19·1	+12·3	—10·7	+ 0·6	+12·7	—13·6	+ 7·0
Tehatta	— 3·6	+ 8·3	— 5·7	— 2·3	+15·6	— 4·0	— 9·6	— 1·7	+ 7·7	— 2·3	+ 0·7
Karimpur	— 13·1	+ 5·3	—14·4	—13·4	+14·2	+ 6·5	—11·7	— 6·5	— 5·5	+ 4·0	+ 5·6
Ranaghat Subdivision	*+ 70·1*	*+ 76·1*	*— 6·0*	*+66·2*	*+13·0*	*— 6·2*	*— 5·5*	*+ 2·2*	*— 2·8*	*— 6·7*	*+ 7·3*
Ranaghat	+ 99·4	+102·1	— 5·8	+85·0	+14·0	— 4·2	— 6·6	+ 5·6	— 1·5	— 8·4	+ 5·8
Chakdah	+ 87·2	+ 90·1	— 7·0	+84·0	+15·7	—10·7	— 1·5	— 0·0	— 7·5	— 4·0	+ 6·4
Haringhata	+ 32·5	+ 34·6	— 7·0	+37·9	+12·9	—18·6	— 1·5	— 0·0	— 7·5	— 4·0	+ 6·4
Hanskhali	+ 28·8	+ 37·8	— 0·1	+46·9	+ 1·9	— 8·0	—11·0	+ 5·1	+14·5	—17·6	+13·3
Santipur	+ 60·7	+ 73·6	— 9·0	+44·6	+16·8	+ 2·8	— 6·2	— 1·2	— 8·2	+ 0·2	+ 6·8

STATEMENT I.76

10 **Murshidabad District**	+ 29·7	+ 40·2	+ 0·8	+ 4·6	+19·7	+12·0	— 9·0	+ 1·7	+ 5·7	+ 2·0	+ 1·0
Sadar Subdivision	*+ 26·5*	*+ 42·8*	*— 3·9*	*+ 8·9*	*+23·5*	*+ 6·1*	*— 9·3*	*— 2·4*	*+ 7·3*	*+ 1·0*	*+ 0·1*
Berhampur Town	+ 58·6	+ 72·7	+ 0·4	+25·4	+30·1	+ 5·8	— 7·6	— 0·6	+11·2	+ 0·3	— 2·0
Beldanga	+ 28·2	+ 39·6	+ 0·4	+ 4·6	+26·1	+ 5·8	— 7·6	— 0·6	+11·2	+ 0·3	— 2·0
Nawada	+ 13·2	+ 29·1	+ 7·0	+ 2·1	+28·3	+ 2·5	—10·5	— 2·0	+ 6·2	+ 2·6	+12·0
Hariharpara	+ 2·4	+ 25·2	—18·9	+ 6·4	+20·4	— 2·3	—12·3	— 6·7	+ 3·9	— 3·6	— 1·0
Domkal	+ 26·0	+ 45·7	— 7·5	+ 8·2	+20·4	+11·7	—10·4	— 3·5	+ 3·2	+ 4·0	— 0·3
Jalangi	+ 8·5	+ 25·5	— 7·5	— 2·1	+13·4	+13·0	—10·4	— 3·5	+ 3·2	+ 4·0	— 0·3
Lalbagh Subdivision	*+ 35·3*	*+ 46·5*	*—12·4*	*+ 8·2*	*+17·3*	*+15·3*	*— 8·5*	*+ 1·0*	*— 5·0*	*+ 2·8*	*— 2·9*
Murshidabad	+ 14·2	+ 24·4	+ 0·4	+ 3·1	+14·0	+ 5·8	— 7·6	— 0·6	+11·2	+ 0·3	— 2·0
Jiaganj	+ 15·3	+ 60·8	—49·9	+26·1	+32·1	— 3·5	— 9·0	—21·2	—15·3	— 3·4	—14·5
Nabagram	+ 30·8	+ 31·4	+ 8·8	+ 6·8	+ 8·2	+13·8	— 7·7	— 7·8	+11·2	+ 0·3	— 2·0
Lalgola	+ 44·2	+ 57·5	+ 1·1	+10·7	+22·0	+15·6	—15·2	+ 7·9	—10·6	+10·3	+12·0
Bhagwangola	+ 60·1	+ 49·6	— 1·8	+13·5	+23·5	+ 6·8	+ 1·3	+ 5·6	+ 4·7	— 0·4	— 6·4
Raninagar	+ 30·4	+ 54·7	—28·2	+ 0·6	+12·8	+36·4	—12·3	— 3·8	—18·0	+ 9·2	— 5·0
Jangipur Subdivision	*+ 38·0*	*+ 47·3*	*+19·8*	*+ 4·9*	*+20·0*	*+16·9*	*—11·0*	*+ 5·3*	*+ 9·5*	*+ 3·2*	*+13·1*
Farakka	+ 49·8	+ 45·3	+60·3	+10·3	+15·8	+13·8	—11·0	+15·9	+11·9	+14·2	+21·7
Samserganj	+ 49·8	+ 45·3	+60·3	+10·3	+15·8	+13·8	—11·0	+15·9	+11·9	+14·2	+21·7
Suti	+ 44·9	+ 47·7	+25·6	— 0·5	+22·2	+21·5	— 6·1	+ 4·4	— 8·1	+ 3·4	+34·7
Raghunathganj	+ 34·8	+ 55·4	+ 1·1	+ 3·7	+28·1	+16·9	—13·0	— 0·3	+16·9	— 2·2	+ 1·9
Sagardighi	+ 19·2	+ 37·4	+ 1·1	+ 5·2	+11·7	+16·9	—13·0	— 0·3	+16·9	— 2·2	+ 1·9
Kandi Subdivision	*+ 20·1*	*+ 23·1*	*+ 5·6*	*— 5·4*	*+16·7*	*+11·5*	*— 6·9*	*+ 4·7*	*+11·8*	*+ 1·0*	*— 4·1*
Kandi	+ 22·9	+ 24·9	+ 7·6	— 5·5	+15·9	+14·0	— 7·3	+ 6·2	+11·2	+ 0·3	— 2·0
Khargram	+ 28·4	+ 27·6	+ 5·4	+ 0·0	+14·1	+11·8	— 6·3	+ 7·5	+13·9	+ 3·6	—11·3
Burwan	+ 17·3	+ 19·3	+ 7·6	— 6·4	+17·8	+ 8·1	— 7·6	+ 6·5	+11·2	+ 0·3	— 2·0
Bharatpur	+ 14·8	+ 21·7	+ 3·0	— 8·2	+18·1	+12·3	— 6·3	+ 6·3	+11·2	+ 0·3	— 2·0

STATEMENT I.80

11 **Malda District**	+ 55·3	+ 36·6	+ 52·7	+11·0	+17·2	+ 5·0	— 1·8	+15·7	+10·3	+16·4	+ 4·6
Sadar Subdivision	*+ 55·3*	*+ 36·6*	*+ 52·7*	*+11·0*	*+17·2*	*+ 5·0*	*— 1·8*	*+15·7*	*+10·3*	*+16·4*	*+ 4·6*
Englishbazar	+ 33·4	+ 49·2	— 5·6	+12·4	+19·9	+10·7	—14·5	+ 4·6	— 6·2	+13·4	— 0·8
Kaliachak	+ 52·6	+ 43·3	+ 32·2	+16·4	+18·1	+ 4·3	— 4·2	+11·2	+14·3	+12·1	— 3·1
Malda	+ 26·7	+ 14·4	+ 58·5	+10·1	+11·1	— 6·5	— 4·9	+16·4	+22·9	+15·7	+ 0·7
Habibpur	+ 68·6	+ 52·3	+ 58·5	+38·0	+ 6·8	+ 3·3	— 4·9	+16·4	+22·9	+15·7	+ 0·7
Ratua	+ 67·1	+ 42·9	+109·2	+12·5	+20·0	+ 5·8	— 4·2	+22·2	+ 8·7	+34·8	+22·1
Manikchak	+ 64·3	+ 40·5	+106·2	+19·8	+14·7	+ 2·3	— 4·2	+22·2	+ 7·1	+34·8	+22·1
Kharba	+ 41·9	+ 24·8	+ 58·0	— 2·5	+23·3	+ 8·8	— 2·3	+16·4	+10·4	+ 8·8	+12·0
Harishchandrapur	+112·5	+ 40·8	+ 82·5	+ 1·2	+21·0	+15·0	+25·9	+19·9	— 0·8	+ 8·8	+12·0
Gajol	+ 38·1	+ 11·2	+ 74·7	— 0·3	+ 9·5	+ 1·9	+ 2·7	+20·9	+22·0	+17·5	— 1·8
Bamangola	+ 59·5	+ 28·5	+ 74·7	+10·3	+15·4	+ 1·0	+ 2·7	+20·9	+22·0	+17·5	— 1·8

STATEMENT I.84

State, District and Police Station	Percentage Variation 1901-51	1921-51	1872-1921	1941-51	1931-41	1921-31	1911-21	1901-11	1891-1901	1881-91	1872-81
12 **West Dinajpur District**	+57·8	+46·9	+21·9	+23·5	+11·4	+6·8	—3·8	+11·6	+7·8	+4·0	+1·3
Balurghat Subdivision	*+83·5*	*+67·7*	*+37·8*	*+30·6*	*+14·4*	*+12·3*	*—4·4*	*+14·5*	*+15·5*	*+6·7*	*+2·2*
Hili	+108·3	+87·7	+54·7	+52·4	+15·2	+6·9	—2·9	+14·2	+23·9	+6·5	+5·7
Balurghat	+108·3	+87·7	+54·7	+52·4	+15·2	+6·9	—2·9	+14·2	+24·0	+6·5	+5·7
Kumarganj	+115·8	+94·5	+54·7	+21·4	+10·2	+45·3	—2·9	+14·2	+23·9	+6·5	+5·7
Tapan	+54·5	+43·4	+22·7	+17·0	+21·1	+1·2	—6·1	+14·8	+7·5	+6·9	—0·9
Gangarampur	+53·7	+42·7	+22·7	+15·9	+9·6	+12·8	—6·1	+14·8	+7·5	+6·8	—0·9
Raiganj Subdivision	*+41·3*	*+33·2*	*+13·3*	*+18·2*	*+9·2*	*+3·2*	*—3·3*	*+9·8*	*+3·4*	*+2·5*	*+0·7*
Bansihari	+26·3	+15·7	+20·5	+2·5	+7·2	+5·3	—5·3	+15·3	+3·8	+1·7	+4·6
Kushmandi	+22·8	+12·5	+20·5	+5·0	+2·6	+3·6	—5·3	+15·3	+3·8	+1·7	+4·6
Kaliaganj	+24·0	+14·4	+20·5	+9·7	+0·8	+3·4	—20·6	+10·7	+4·7	+6·1	+0·2
Hemtabad	+30·1	+29·6	—1·0	+20·6	+4·8	+2·5	—2·6	+3·1	+1·6	—0·9	—2·1
Raiganj	+72·0	+71·3	—1·0	+55·4	+11·0	—0·8	—2·6	+3·1	+1·6	—0·9	—2·1
Itahar	+58·7	+46·5	+20·5	+10·5	+25·6	+5·5	—2·1	+10·7	+4·7	+6·1	+0·2

STATEMENT I.88

State, District and Police Station	1901-51	1921-51	1872-1921	1941-51	1931-41	1921-31	1911-21	1901-11	1891-1901	1881-91	1872-81
13 **Jalpaiguri District**	+67·8	+31·8	+244·2	+8·1	+14·4	+6·5	+5·0	+21·4	+25·7	+36·9	+57·0
Sadar Subdivision	*+28·3*	*+21·1*	*+154·4*	*+4·1*	*+12·6*	*+3·4*	*—1·7*	*+7·8*	*+17·9*	*+32·7*	*+53·5*
Jalpaiguri	+40·2	+44·4	+46·8	+15·0	+17·4	+7·0	—6·8	+4·2	—0·7	+9·9	+38·5
Rajganj	—0·5	—6·2	+17·1	+1·2	+3·5	—10·4	—1·8	+8·0	—3·0	—7·5	+24·2
Mainaguri	+17·3	+8·4	+319·9	—6·1	+20·2	—3·9	—1·0	+9·2	+31·2	+62·2	+82·5
Nagrakata	+20·8	+11·7	+319·9	+6·0	+1·3	+4·0	—1·0	+9·2	+31·2	+62·2	+82·5
Dhupguri	+51·3	+40·0	+319·9	+9·2	+15·2	+11·3	—1·0	+9·2	+31·2	+62·2	+32·5
Mal	+14·8	+5·4	+313·3	—7·3	+13·3	+0·4	+0·9	+7·9	+28·3	+62·2	+82·5
Matiali	+60·0	+47·0	+313·3	+15·4	+3·2	+23·4	+0·9	+7·9	+28·3	+62·2	+82·5
Alipur Duars Subdivision	*+208·7*	*+51·5*	*+893·8*	*+14·8*	*+17·5*	*+12·3*	*+20·0*	*+69·8*	*+64·7*	*+62·2*	*+82·5*
Madarihat	+154·3	+48·5	+700·3	+11·4	+14·0	+17·0	+11·6	+53·4	+57·9	+62·2	+82·5
Falakata	+112·5	+24·1	+700·3	+6·3	+11·5	+4·7	+11·6	+53·5	+57·9	+62·2	+82·5
Kalchini	+298·3	+75·5	+1,042·2	+10·0	+25·1	+27·6	+25·0	+81·5	+70·0	+62·2	+82·5
Alipur Duars	+260·3	+58·8	+1,042·0	+24·7	+18·1	+7·9	+25·0	+81·5	+70·0	+62·2	+82·5
Kumargram	+219·3	+40·7	+1,042·3	+10·6	+15·4	+4·6	+25·0	+81·5	+70·0	+62·2	+82·5

STATEMENT I.94

State, District and Police Station	1901-51	1921-51	1872-1921	1941-51	1931-41	1921-31	1911-21	1901-11	1891-1901	1881-91	1872-81
14 **Darjeeling District**	+78·7	+57·5	+198·5	+18·3	+17·7	+13·0	+6·5	+6·6	+11·6	+48·9	+68·8
Sadar Subdivision	*+84·5*	*+59·3*	*+300·6*	*+15·1*	*+23·6*	*+11·9*	*+3·8*	*+11·6*	*+16·3*	*+51·1*	*+96·8*
Darjeeling	+86·9	+61·3	+300·5	+29·6	+10·5	+12·6	+3·8	+11·6	+16·3	+51·1	+96·7
Jore Bungalow	+87·1	+61·5	+300·6	—9·7	+51·9	+17·7	+3·8	+11·6	+16·3	+51·1	+96·8
Pulbazar	+91·5	+65·3	+300·6	+26·3	+18·4	+10·6	+3·8	+11·6	+16·3	+51·1	+96·8
Sukhiapokri	+98·0	+71·0	+300·5	+5·7	+28·5	+25·0	+3·8	+11·5	+16·3	+51·1	+96·8
Rangli Rangliot	+65·9	+43·2	+300·5	+16·0	+23·9	—0·3	+3·8	+11·6	+16·3	+5·1	+96·7
Kurseong Subdivision	*+45·4*	*+62·8*	*+194·8*	*+9·5*	*+15·4*	*+28·8*	*—2·1*	*—8·8*	*+1·2*	*+65·7*	*+96·8*
Kurseong	+51·4	+69·5	+194·8	+15·5	+13·9	+28·8	—2·1	—8·8	+1·2	+65·7	+96·8
Mirik	+29·8	+45·3	+194·7	—5·4	+19·3	+28·8	—2·1	—8·8	+1·2	+65·7	+96·8
Siliguri Subdivision	*+65·3*	*+53·7*	*+57·9*	*+29·4*	*+12·2*	*+5·9*	*+4·9*	*+2·5*	*—3·5*	*+15·4*	*+31·8*
Siliguri	+116·4	+101·2	+57·9	+61·2	+17·8	+6·0	+4·9	+2·5	—3·5	+15·4	+31·8
Kharibari	+22·5	+13·9	+57·9	+2·7	+4·6	+6·0	+4·9	+2·5	—3·5	+15·4	+31·8
Phansidewa	+25·3	+16·5	+57·9	—0·5	+10·8	+5·7	+4·9	+2·5	—3·5	+15·4	+31·8
Kalimpong Subdivision	*+125·1*	*+55·5*	*+832·3*	*+18·2*	*+15·9*	*+13·5*	*+21·4*	*+19·3*	*+55·9*	*+110·0*	*+96·8*
Kalimpong	+123·3	+54·3	+832·2	+19·6	+16·5	+10·6	+21·3	+19·3	+55·9	+110·0	+96·7
Garubathan	+133·4	+61·2	+832·6	+12·2	+13·3	+26·9	+21·4	+19·3	+55·9	+110·0	+96·8

STATEMENT I.98

State, District and Police Station	1901-51	1921-51	1872-1921	1941-51	1931-41	1921-31	1911-21	1901-11	1891-1901	1881-91	1872-81
15 **Cooch Behar District**	+18·4	+13·3	+11·3	+4·7	+8·5	—0·3	—0·1	+4·6	—2·1	—3·9	+13·2
Tufanganj	+33·1	+17·8	+63·1	+3·2	+11·2	+2·6	+3·5	+9·1	+0·5	+11·0	+29·5
Dinhata	+15·8	+12·4	+5·1	+3·9	+7·8	+0·4	—0·2	+3·2	—2·0	—5·6	+10·4
Sitai	—6·0	—8·7	+5·1	—14·6	+6·4	+0·4	—0·2	+3·2	—2·0	—5·6	+10·4
Cooch Behar	+41·3	+29·9	+5·8	+14·6	+13·1	+0·2	+1·3	+7·4	—5·9	—7·2	+11·4
Sitalkuchi	+4·0	+1·0	+3·3	—2·3	+6·3	—2·8	+1·2	+1·7	—2·6	—6·7	+10·4
Mathabhanga	+7·0	+7·2	+0·1	+2·8	+4·8	—0·5	—1·8	+1·7	—2·6	—6·7	+10·4
Mekliganj	—9·9	—7·6	+8·4	—0·6	—4·0	—3·2	—5·0	+2·7	—1·6	—2·2	+15·4
Haldibari	+23·7	+20·5	+26·0	+6·8	+17·0	—3·6	—2·2	+5·0	+8·3	—1·8	+15·4

STATEMENT I.102

State, District and Police Station	1901-51	1921-51	1872-1921	1941-51	1931-41	1921-31	1911-21	1901-11	1891-1901	1881-91	1872-81
Sikkim State	+133·4	+68·5	..	+13·3	+10·7	+34·4	—7·1	+49·0	+93·8	..	..

STATEMENT I.105

State, District and Police Station	1901-51	1921-51	1872-1921	1941-51	1931-41	1921-31	1911-21	1901-11	1891-1901	1881-91	1872-81
Chandernagore	+86·0	+96·3	..	+30·4	+40·4	+7·2	+0·5	—5·7	..	..	..

STATEMENT

Population of administrative divisions of

State, District and Police Station 1	Population 1951 2	Variation 1941-51 3	Population 1941 4	Variation 1931-41 5	Population 1931 6	Variation 1921-31 7	Population 1921 8	Variation 1911-21 9
WEST BENGAL	**24,810,308**	**+2,973,013**	**21,837,295**	**+4,173,868**	**17,663,427**	**+1,262,590**	**16,400,837**	**—391,963**
BURDWAN DIVISION	**11,102,530**	**+815,161**	**10,287,369**	**+1,640,180**	**8,647,189**	**+596,547**	**8,050,642**	**—416,864**
1 Burdwan District	**2,191,667**	**+300,935**	**1,890,732**	**+315,033**	**1,575,699**	**+140,928**	**1,434,771**	**—99,103**
Sadar Subdivision	**802,057**	**+64,406**	**737,651**	**+112,356**	**625,295**	**+35,446**	**589,849**	**—73,390**
1 Burdwan	153,198	+12,247	140,951	+40,161	100,790	+6,509	94,281	—9,418
2 Khandaghosh	60,095	+3,246	56,849	+4,396	52,453	+1,768	50,685	—9,677
3 Raina	111,169	+14,893	96,276	+9,608	86,668	+1,483	85,185	—16,616
4 Jamalpur	80,106	+4,842	75,264	+12,096	63,168	+343	62,825	—799
5 Memari	115,223	+9,992	105,231	+18,102	87,129	+5,628	81,501	—8,143
6 Galsi	107,001	+9,286	97,715	+8,981	88,734	+11,587	77,147	—13,124
7 Bhatar	84,633	+7,484	77,149	+10,535	66,614	+4,303	62,311	—6,226
8 Ausgram	90,632	+2,416	88,216	+8,477	79,739	+3,825	75,914	—9,387
Asansol Subdivision	**769,265**	**+163,576**	**605,689**	**+142,609**	**463,080**	**+59,116**	**403,964**	**+15,382**
1 Salanpur	47,354	+20,758	26,596	+2,602	23,994	+1,127	22,867	+1,220
2 Kulti	122,212	+25,663	96,549	+33,742	62,807	+8,363	54,444	+2,925
3 Hirapur	59,934	+16,379	43,555	+15,945	27,610	+3,677	23,933	+1,286
4 Asansol	115,485	+31,561	83,924	+30,725	53,199	+7,084	46,115	+2,478
5 Barabani	50,530	+8,094	42,436	+2,320	40,116	+95	40,021	+2,150
6 Jamuria	111,550	+23,875	87,675	+13,235	74,440	+14,060	60,380	+3,203
7 Raniganj	71,495	+14,772	56,723	+12,433	44,290	+3,992	40,298	+2,138
8 Ondal	86,008	+10,577	75,431	+19,207	56,224	+14,271	41,953	+2,226
9 Faridpur	54,506	+420	54,086	+8,489	45,597	+2,597	43,000	+2,281
10 Kanksa	50,191	+11,477	38,714	+3,911	34,803	+3,850	30,953	—4,584
Kalna Subdivision	**305,751**	**+58,079**	**247,672**	**+28,935**	**218,737**	**+12,783**	**205,954**	**—19,271**
1 Kalna	122,534	+21,486	101,048	+12,353	88,695	+4,270	84,425	—4,986
2 Purbasthali	104,628	+31,674	72,954	+6,696	66,258	+1,209	65,049	—8,201
3 Mantoswar	78,589	+4,919	73,670	+9,886	63,784	+7,304	56,480	—6,084
Katwa Subdivision	**314,594**	**+14,874**	**299,720**	**+31,133**	**268,587**	**+33,583**	**235,004**	**—21,824**
1 Katwa	128,193	+12,709	115,484	+13,604	101,880	+10,986	90,894	—4,061
2 Mangalkot	88,871	+6,920	81,951	+3,738	78,213	+11,715	66,498	—5,702
3 Ketugram	97,530	—4,755	102,285	+13,791	88,494	+10,882	77,612	—12,061
2 Birbhum District	**1,066,889**	**+18,572**	**1,048,317**	**+100,763**	**947,554**	**+95,829**	**851,725**	**—88,437**
Sadar Subdivision	**638,159**	**+14,309**	**623,850**	**+57,595**	**566,255**	**+67,016**	**499,239**	**—49,922**
1 Suri	80,823	+3,244	77,579	+9,309	68,270	+5,476	62,794	—6,202
2 Sainthia	70,773	+5,517	65,256	+4,859	60,397	+13,485	46,912	—4,630
3 Rajnagar	33,526	—1,034	34,560	+3,940	30,620	+3,224	27,396	—2,704
4 Mahammadbazar	53,392	+1,542	51,850	+5,628	46,222	+17,513	28,709	—2,884
5 Dubrajpur	76,226	+5	76,221	+7,178	69,043	+5,317	63,726	—6,294
6 Khoyrasol	61,553	+277	61,276	+6,339	54,937	+11,712	43,225	—1,267
7 Illambazar	48,289	—380	48,669	+745	47,924	+10,700	37,224	—3,675
8 Bolpur	77,440	+9,606	67,834	+5,620	62,214	+13,891	48,323	—4,770
9 Labhpur	66,778	—438	67,216	+4,915	62,301	+678	61,623	—6,840
10 Nanoor	69,359	—4,030	73,389	+9,062	64,327	—14,980	79,307	—7,706
Rampurhat Subdivision	**428,730**	**+4,263**	**424,467**	**+43,168**	**381,299**	**+28,813**	**352,486**	**—38,515**
1 Rampurhat	131,309	+1,633	129,676	+16,145	113,531	+12,160	101,371	—9,098
2 Mayureswar	91,835	—2,000	93,835	+10,949	82,886	—5,638	88,524	—8,583
3 Nalhati	102,116	+3,179	98,937	+7,010	91,927	+8,057	83,870	—6,284
4 Murarai	103,470	+1,451	102,019	+9,064	92,955	+14,234	78,721	—14,550
3 Bankura District	**1,319,259**	**+29,619**	**1,289,640**	**+177,919**	**1,111,721**	**+91,780**	**1,019,941**	**—118 729**
Sadar Subdivision	**965,363**	**+28,682**	**936,681**	**+148,073**	**788,608**	**+94,166**	**694,442**	**—52,522**
1 Bankura	141,850	+1,364	140,486	+30,780	109,706	+17,280	92,426	—2,639
2 Onda	84,829	—1,405	86,234	+10,855	75,379	+8,517	66,862	—9,540
3 Chhatna	89,182	+7,329	81,853	+14,593	67,260	+5,709	61,551	—1,757
4 Gangajalghati	70,817	—1,013	71,830	+15,595	56,235	+6,244	49,991	—4,511
5 Barjora	69,831	—8,520	78,351	+15,409	62,942	+6,242	56,700	—5,116
6 Mejhia	34,068	—785	34,853	+5,169	29,684	+3,134	26,550	—2,896
7 Saltora	59,304	+2,259	57,045	+8,870	48,175	+7,655	40,520	—3,656
8 Khatra	84,020	+5,550	78,470	+10,317	68,153	+10,166	57,987	—3,766
9 Indpur	63,069	+4,602	58,467	+9,250	49,217	+7,353	41,864	—2,719
10 Ranibandh	57,850	+5,283	52,567	+4,744	47,823	+5,486	42,337	—2,750
11 Raipur	110,028	+9,114	100,914	+8,761	92,153	+8,909	83,244	—5,407
12 Simlapal	49,782	+1,647	48,135	+8,012	40,123	+4,384	35,739	—2,747
13 Taldangra	50,733	+3,257	47,476	+5,718	41,758	+3,087	38,671	—5,518
Vishnupur Subdivision	**353,896**	**+937**	**352,959**	**+29,846**	**323,113**	**—2,386**	**325,499**	**—66,207**
1 Vishnupur	73,741	+1,099	72,642	+8,412	64,230	—158	64,388	—8,902
2 Jaypur	52,359	—1,500	53,859	+3,422	50,437	—124	50,561	—6,990
3 Kotulpur	54,374	+1,990	52,384	+2,671	49,713	—122	49,835	—6,890
4 Sonamukhi	61,307	—864	62,171	+8,689	53,482	—131	53,613	—7,412
5 Patrasair	60,940	—308	61,248	+4,129	57,119	—140	57,259	—7,916
6 Indas	51,175	+520	50,655	+2,523	48,132	—1,711	49,843	—28,097

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West Bengal with variation from 1872-1951

Population 1911	Variation 1901-11	Population 1901	Variation 1891-1901	Population 1891	Variation 1881-91	Population 1881	Variation 1872-81	Population 1872
10	11	12	13	14	15	16	17	18
16,792,800	**+958,790**	**15,834,010**	**+1,184,160**	**14,649,850**	**+812,429**	**13,837,421**	**+225,864**	**13,611,557**
8,467,506	**+227,245**	**8,240,261**	**+551,072**	**7,689,189**	**+295,235**	**7,393,954**	**—210,707**	**7,604,661**
1,533,874	**+5,584**	**1,528,290**	**+136,410**	**1,391,880**	**+57**	**1,391,823**	**—92,027**	**1,483,850**
663,239	**—19,142**	**682,381**	**+62,513**	**619,868**	**—19,725**	**639,593**	**—84,540**	**724,133**
103,699	—2,437	106,136	+12,027	94,109	—661	94,770	—11,161	105,931
60,362	—1,385	61,747	+5,808	55,939	+958	54,981	—12,684	67,665
101,801	—3,562	105,363	+10,031	95,332	—1,858	97,190	—4,815	102,005
63,624	—2,672	66,296	—5,475	71,771	+62	71,709	—12,993	84,702
89,644	—2,107	91,751	+10,398	81,353	—571	81,924	—9,649	91,573
90,271	—2,968	93,239	+12,011	81,228	+2,155	79,073	—12,228	91,301
68,537	—1,610	70,147	+7,949	62,198	—437	62,635	—7,376	70,011
85,301	—2,401	87,702	+9,764	77,938	—19,373	97,311	—13,634	110,945
388,582	**+17,594**	**370,988**	**+60,715**	**310,273**	**+25,859**	**284,414**	**+46,309**	**238,105**
21,638	+1,149	20,489	+4,949	15,540	+3,478	12,062	+3,633	8,429
51,519	+2,736	48,783	+11,783	37,000	+8,280	28,720	+8,650	20,070
22,647	+1,203	21,444	+5,180	16,264	+3,640	12,624	+3,802	8,822
43,637	+2,318	41,319	+9,980	31,339	+7,014	24,325	+7,326	16,999
37,871	+2,011	35,860	+8,662	27,198	+6,087	21,111	+6,359	14,752
57,177	+3,211	53,966	+5,838	48,128	+449	47,679	+5,546	42,133
38,160	+2,143	36,017	+3,896	32,121	+300	31,821	+3,701	28,120
39,727	+2,231	37,496	+4,056	33,440	+312	33,128	+3,853	29,275
40,719	+2,287	38,432	+4,157	34,275	+320	33,955	+3,949	30,006
35,487	—1,695	37,182	+2,214	34,968	—4,021	38,989	—510	39,499
225,225	**—1,192**	**226,417**	**—5,095**	**231,512**	**—6,095**	**237,607**	**—49,252**	**286,859**
89,411	—818	90,229	+138	90,091	—2,393	92,484	—29,517	122,001
73,250	—2,369	75,619	—1,479	77,098	—4,972	82,070	+393	81,677
62,564	+1,995	60,569	—3,754	64,323	+1,270	63,053	—20,128	83,181
256,828	**+8,324**	**248,504**	**+18,277**	**230,227**	**+18**	**230,209**	**—4,544**	**234,753**
94,955	+2,255	92,700	+11,010	81,690	—1,253	82,943	+2,375	80,568
72,200	+1,683	70,517	—1,083	71,600	—1,943	73,543	—1,317	74,860
89,673	+4,386	85,287	+8,350	76,937	+3,214	73,723	—5,602	79,325
940,162	**+33,271**	**906,891**	**+108,637**	**798,254**	**+3,826**	**794,428**	**—59,357**	**853,785**
549,161	**+8,622**	**540,539**	**+70,310**	**470,229**	**—13,692**	**483,921**	**—67,455**	**551,376**
68,996	—72	69,068	+8,699	60,369	—2,933	63,302	—8,091	71,393
51,542	—55	51,597	+6,499	45,098	—2,192	47,290	—6,044	53,334
30,100	—32	30,132	+3,796	26,336	—1,279	27,615	—3,529	31,144
31,543	—33	31,576	+3,976	27,600	—1,341	28,941	—3,699	32,640
70,020	—73	70,093	+8,829	61,264	—2,977	64,241	—8,211	72,452
47,492	—50	47,542	+5,988	41,554	—2,020	43,574	—5,569	49,143
40,899	—43	40,942	+5,157	35,785	—1,738	37,523	—4,795	42,318
53,093	—56	53,149	+6,694	46,455	—2,257	48,712	—6,226	54,938
68,463	+4,182	64,281	+6,658	57,623	+1,395	56,228	—9,755	65,983
87,013	+4,854	82,159	+14,014	68,145	+1,650	66,495	—11,536	78,031
391,001	**+24,649**	**366,352**	**+38,327**	**328,025**	**+17,518**	**310,507**	**+8,098**	**302,409**
110,469	+7,659	102,810	+9,376	93,434	+5,660	87,774	—5,618	93,392
97,107	+3,268	93,839	+7,411	86,428	—2,408	88,836	—12,605	101,441
90,154	+6,633	83,521	+8,902	74,619	+7,185	67,434	+13,256	54,178
93,271	+7,089	86,182	+12,638	73,544	+7,081	66,463	+13,065	53,398
1,138,670	**+22,259**	**1,116,411**	**+46,743**	**1,069,668**	**+27,916**	**1,041,752**	**+73,155**	**968,597**
746,964	**+34,909**	**712,055**	**+19,698**	**692,357**	**+45,272**	**647,085**	**+88,486**	**558,599**
95,065	+5,704	89,361	+4,964	84,397	+7,833	76,564	+6,056	70,508
76,402	—1,474	77,876	+345	77,531	+1,934	75,597	+7,811	67,786
63,308	+3,799	59,509	+3,305	56,204	+5,217	50,987	+4,032	46,955
54,502	+1,158	53,344	+2,079	51,265	+1,605	49,660	+3,888	45,772
61,816	+1,315	60,501	+2,359	58,142	+1,319	56,823	+4,410	51,913
28,946	+616	28,330	+1,105	27,225	+851	26,374	+2,065	24,309
44,176	+940	43,236	+1,686	41,550	+1,300	40,250	+3,150	37,100
61,753	+5,999	55,754	+658	55,096	+4,956	50,140	+12,404	37,736
44,583	+4,332	40,251	+475	39,776	+3,578	36,198	+8,955	27,243
45,087	+4,381	40,706	+480	40,226	+3,618	36,608	+9,056	27,552
88,651	+8,614	80,037	+945	79,092	+7,114	71,978	+17,807	54,171
38,486	+377	38,109	+1,098	37,011	+4,329	32,682	+4,335	28,347
44,189	—852	45,041	+199	44,842	+1,118	43,724	+4,517	39,207
391,706	**—12,650**	**404,356**	**+27,045**	**377,311**	**—17,356**	**394,667**	**—15,331**	**409,998**
73,290	—1,926	75,216	+4,508	70,708	—3,070	73,778	—3,984	77,762
57,551	—1,513	59,064	+3,540	55,524	—2,411	57,935	—3,128	61,063
56,725	—1,491	58,216	+3,489	54,727	—2,376	57,103	—3,083	60,186
61,025	—1,604	62,629	+3,753	58,876	—2,556	61,432	—3,318	64,750
65,175	—1,713	66,888	+4,008	62,880	—2,730	65,610	—3,543	69,153
77,940	—4,403	82,343	+7,747	74,596	—4,213	78,809	+1,725	77,084

STATEMENT

State, District and Police Station 1	Population 1951 2	Variation 1941-51 3	Population 1941 4	Variation 1931-41 5	Population 1931 6	Variation 1921-31 7	Population 1921 8	Variation 1911-21 9
4 Midnapur District	**3,359,022**	**+168,375**	**3,190,647**	**+391,554**	**2,799,093**	**+132,433**	**2,666,660**	**—154,541**
Sadar Subdivision	**1,057,658**	**+97,153**	**960,505**	**+99,883**	**860,622**	**+22,962**	**837,660**	**—95,798**
1 Midnapur	94,362	+4,412	89,950	+14,872	75,078	+5,597	69,481	—8,690
2 Salbani	68,266	+5,907	62,359	+5,564	56,795	—2,001	58,796	—782
3 Keshpur	85,856	+4,710	81,146	+7,293	73,853	+1,446	72,407	—10,950
4 Garhbeta	150,115	+15,212	134,903	+12,824	122,079	+3,846	118,233	—8,120
5 Debra	69,090	+4,608	64,482	+6,990	57,492	—57	57,549	—9,250
6 Sabang	74,177	+2,625	71,552	+266	71,286	—4,520	75,806	—13,655
7 Pingla	50,363	+2,598	47,765	+821	46,944	—2,312	49,256	—8,878
8 Khargpur (local)	95,722	+10,380	85,342	+5,832	79,510	+9,117	70,393	—104
9 Khargpur (town)	129,636	+42,451	87,185	+29,051	58,134	+6,666	51,468	—76
10 Narayangarh	75,499	+3,759	71,740	+5,813	65,927	—5,698	71,625	—16,171
11 Dantan	90,346	—1,545	91,891	+4,334	87,557	+2,394	85,163	—9,424
12 Mohanpur	30,550	—315	30,865	+2,763	28,102	—394	28,496	—3,153
13 Keshiari	43,676	+2,351	41,325	+3,460	37,865	+8,878	28,987	—6,545
Contai Subdivision	**739,841**	**—16,244**	**756,085**	**+123,209**	**632,876**	**+19,651**	**613,225**	**—5,060**
1 Contai	190,850	—10,661	201,511	+34,660	166,851	—9,342	176,193	—247
2 Khedgree	92,439	+413	92,026	+14,822	77,204	+16,788	60,416	+955
3 Bhagwanpur	140,499	+8,558	131,941	+17,150	114,791	—11,909	126,700	+2,002
4 Pataspur	100,735	—4,965	105,700	+10,557	95,143	+775	94,368	—7,714
5 Ramnagar	103,602	—5,281	108,883	+24,065	84,818	+8,755	76,063	+56
6 Egra	111,716	—4,308	116,024	+21,955	94,069	+14,584	79,485	—112
Tamluk Subdivision	**788,438**	**+35,286**	**753,152**	**+109,995**	**643,157**	**+47,285**	**595,872**	**—5,568**
1 Tamluk	142,038	+9,953	132,085	+23,876	108,209	+9,310	98,899	—1,614
2 Panskura	176,405	+17,650	158,755	+14,288	144,467	+6,077	138,390	—5,601
3 Moyna	69,639	+6,037	63,602	+9,530	54,072	+3,538	50,534	—825
4 Mahisadal	141,390	+5,688	135,702	+22,545	113,157	+9,215	103,942	+1,619
5 Nandigram	159,584	—6,285	165,869	+25,475	140,394	+11,174	129,220	+212
6 Sutahata	99,382	+2,243	97,139	+14,281	82,858	+7,971	74,887	+641
Ghatal Subdivision	**311,382**	**+16,722**	**294,660**	**+21,352**	**273,308**	**+3,539**	**269,769**	**—31,627**
1 Ghatal	84,670	+250	84,420	+8,621	75,799	+4,629	71,170	—12,171
2 Daspur	140,339	+11,645	128,694	+10,315	118,379	—703	119,082	—4,075
3 Chandrakona	86,378	+4,827	81,546	+2,416	79,130	—387	79,517	—15,381
Jhargram Subdivision	**461,703**	**+35,458**	**426,245**	**+37,115**	**389,130**	**+38,996**	**350,134**	**—16,493**
1 Jhargram	80,381	+12,064	68,317	+7,879	60,438	+5,683	54,755	+888
2 Jambani	49,528	+3,931	45,597	+3,727	41,870	+3,937	37,933	+615
3 Binpur	136,933	+11,639	125,294	+10,344	114,950	+9,440	105,510	—6,760
4 Gopiballavpur	89,916	+3,610	86,306	+6,998	79,308	+9,199	70,109	—5,185
5 Sankrail	47,001	+1,887	45,114	+3,658	41,456	+4,809	36,647	—2,710
6 Nayagram	57,944	+2,327	55,617	+4,509	51,108	+5,928	45,180	—3,341
5 Hooghly District	**1,554,320**	**+176,591**	**1,377,729**	**+263,474**	**1,114,255**	**+34,113**	**1,080,142**	**—9,955**
Sadar Subdivision	**454,573**	**+55,604**	**398,969**	**+74,144**	**324,825**	**+9,541**	**315,284**	**+3,242**
1 Chinsurah	70,601	+10,729	59,872	+19,040	40,832	+3,789	37,043	+2,669
2 Dhaniakhali	94,785	+6,829	87,956	+14,070	73,886	—2,782	76,668	—19,143
3 Polba	83,594	+8,027	75,567	+9,417	66,150	—377	66,527	+21,661
4 Magra	52,108	+10,352	41,756	+12,855	28,901	+6,920	21,981	+1,583
5 Balagarh	67,613	+15,584	52,029	+5,667	40,362	+1,508	44,854	—699
6 Pandua	85,872	+4,083	81,789	+13,095	68,694	+483	68,211	—2,829
Serampur Subdivision	**729,331**	**+95,056**	**634,275**	**+132,941**	**501,334**	**+18,973**	**482,361**	**+21,065**
1 Serampur	141,071	+26,745	114,326	+31,684	82,642	+8,725	73,917	+15,284
2 Uttarpara	65,726	+14,932	50,794	+11,672	39,122	+3,419	35,703	+6,833
3 Bhadreswar	80,753	+10,727	70,026	+12,681	57,345	+1,896	55,449	+10,935
4 Haripal	84,312	+10,773	73,539	+15,110	58,429	+29	58,400	—2,813
5 Tarakeswar	61,366	+8,569	52,797	+11,027	41,770	+417	41,353	—1,638
6 Singur	95,753	+13,203	82,550	+15,003	67,547	+3,127	64,420	—510
7 Chanditala	128,912	+5,761	123,151	+21,561	101,590	+3,562	98,028	—3,556
8 Jangipara	71,438	+4,346	67,092	+14,203	52,889	—2,202	55,091	—3,470
Arambag Subdivision	**370,416**	**+25,931**	**344,485**	**+56,389**	**288,096**	**+5,599**	**282,497**	**—34,269**
1 Arambag	95,172	+10,972	84,200	+14,131	70,069	+1,256	68,813	—7,689
2 Pursura	58,508	+2,882	55,626	+14,461	41,165	+2,504	38,661	—4,292
3 Goghat	86,639	+4,168	82,471	+4,091	78,380	—4,850	83,230	—14,940
4 Khanakul	130,097	+7,909	122,188	+23,706	98,482	+6,680	91,793	—7,391
6 Howrah District	**1,611,373**	**+121,069**	**1,490,304**	**+391,437**	**1,098,867**	**+101,464**	**997,403**	**+53,901**
Sadar Subdivision	**928,456**	**+98,111**	**830,345**	**+259,652**	**570,693**	**+51,822**	**518,871**	**+28,448**
1 Howrah 2 Bantra 3 Golabari 4 Malipanchghara 5 Sibpur (Part)	433,680	+54,338	379,292	+154,419	224,873	+29,572	195,301	+16,224
5 Sibpur (outside)	332	—38	370	+188	282	—108	340	+28
6 Bally	110,189	+26,514	83,675	+27,534	56,141	+11,027	45,114	+85
7 Domjur	98,168	—921	99,089	+18,484	80,605	+1,231	79,374	+4,324
8 Jagacha	33,838	+7,305	26,533	+8,412	18,121	+1,295	16,826	+917
9 Sankrail	99,384	+7,270	92,114	+20,041	72,073	—7,588	79,661	+4,339
10 Jagatballavpur	78,995	—1,388	80,383	+17,608	62,775	+17,784	44,991	+1,114
11 Panchla	73,920	+5,031	68,889	+13,016	55,873	—1,391	57,264	+1,417

OF WEST BENGAL WITH VARIATION, 1872—1951

1.107—contd.

ulation 1911	Variation 1901-11	Population 1901	Variation 1891-1901	Population 1891	Variation 1881-91	Population 1881	Variation 1872-81	Population 1872
10	11	12	13	14	15	16	17	18
2,821,201	**+32,087**	**2,789,114**	**+157,648**	**2,631,466**	**+113,664**	**2,517,802**	**—27,377**	**2,545,179**
933,453	**+16,201**	**917,252**	**+19,512**	**897,740**	**—81,101**	**978,841**	**—66,311**	**1,045,152**
78,171	—150	78,321	+6,510	71,811	+4,235	67,576	—4,405	71,981
59,578	—1,272	60,850	+5,382	55,468	+1,851	53,617	+2,757	50,860
83,357	—3,223	86,580	+2,793	83,787	—11,822	95,609	—13,320	108,929
126,353	—6,769	133,122	+6,638	126,484	—11,539	138,023	—7,241	145,264
66,799	—1,073	67,872	—875	68,747	—1,379	70,126	—40,621	110,747
89,461	—3,637	93,098	+472	92,626	—29,642	122,268	—7,905	130,173
58,129	—2,363	60,492	+307	60,185	—19,261	79,446	—5,136	84,582
70,497	+15,658	54,839	—3,189	58,028	+3,422	54,606	—3,559	58,165
51,544	+11,448	40,096	—2,331	42,427	+2,503	39,924	—2,602	42,526
87,796	+3,479	84,317	+712	83,605	—8,370	91,975	—252	92,227
94,587	+2,019	92,568	+2,064	90,504	—5,740	96,244	+12,045	84,199
31,649	+676	30,973	+691	30,282	—1,921	32,203	+4,030	28,173
35,532	+1,408	34,124	+288	33,836	—3,388	37,224	—102	37,326
618,285	**+15,209**	**603,076**	**+57,718**	**545,358**	**+63,362**	**481,996**	**+39,724**	**442,272**
176,440	+3,911	172,529	+25,159	147,370	+16,816	130,554	+7,697	122,857
59,461	+1,913	57,548	+7,375	50,173	+8,047	42,126	+6,123	36,003
124,698	+4,011	120,687	+9,512	111,175	+14,724	96,451	+6,639	89,812
102,082	+2,788	99,294	+5,760	93,534	+6,210	87,324	+6,201	81,123
76,007	+821	75,186	+5,909	69,277	+7,153	62,124	+7,545	54,579
79,597	+1,765	77,832	+4,003	73,829	+10,412	63,417	+5,519	57,898
601,440	**+17,927**	**583,513**	**+48,555**	**534,958**	**+55,740**	**479,218**	**+11,401**	**467,817**
100,513	+2,467	98,046	+9,436	88,610	+35,631	52,979	+1,792	51,187
143,991	+635	143,356	+5,604	137,752	—4,329	142,081	—21,834	163,915
51,359	+1,261	50,098	+4,821	45,277	+18,207	27,070	+916	26,154
102,323	+5,358	96,965	+7,404	89,561	+8,992	80,569	+8,552	72,017
129,008	+4,604	124,404	+13,945	110,459	—11,436	121,895	+13,068	108,827
74,246	+3,602	70,644	+7,345	63,299	+8,675	54,624	+8,907	45,717
301,396	**—23,595**	**324,991**	**—2,911**	**327,902**	**+40,569**	**287,333**	**—58,248**	**345,581**
83,341	—8,741	92,082	—439	92,521	+8,428	84,093	—18,649	102,742
123,157	—7,507	130,664	—3,166	133,830	+18,561	115,269	—21,090	136,359
94,898	—7,347	102,245	+694	101,551	+13,580	87,971	—18,509	106,480
366,627	**+6,345**	**360,282**	**+34,774**	**325,508**	**+35,094**	**290,414**	**+46,057**	**244,357**
53,867	—567	54,434	+12,478	41,956	+6,640	35,316	+5,911	29,405
37,318	—392	37,710	+8,644	29,066	+4,600	24,466	+4,095	20,371
112,270	+7,288	104,982	+2,467	102,515	+11,811	90,704	+16,433	74,271
75,294	+6	75,288	+5,161	70,127	+5,557	64,570	+9,053	55,517
39,357	+4	39,353	+2,698	36,655	+2,905	33,750	+4,732	29,018
48,521	+6	48,515	+3,326	45,189	+3,581	41,608	+5,833	35,775
1,090,097	**+41,056**	**1,049,041**	**+14,745**	**1,034,296**	**+21,528**	**1,012,768**	**—144,617**	**1,157,385**
312,042	**+3,568**	**308,474**	**—1,142**	**309,616**	**+1,399**	**308,217**	**—54,897**	**363,114**
34,374	—989	35,363	—69	35,432	+1,432	34,000	—13,319	47,319
95,811	+1,104	94,707	—987	95,694	+2,157	93,537	—22,648	116,185
44,866	+517	44,349	—462	44,811	—1,362	46,173	+12,725	33,448
20,398	—587	20,985	—41	21,026	+850	20,176	—7,904	28,080
45,553	+1,139	44,414	—2,315	46,729	—1,489	48,218	—12,737	60,955
71,040	+2,384	68,656	+2,732	65,924	—189	66,113	—11,014	77,127
461,296	**+48,118**	**413,178**	**+13,191**	**399,987**	**+48,032**	**351,955**	**—41,909**	**393,864**
58,633	+17,906	40,727	+6,420	34,307	+4,065	30,242	+4,421	25,821
29,370	+6,787	22,583	+3,885	18,698	+3,554	15,144	+1,643	13,501
44,514	+12,491	32,023	+5,212	26,811	+3,853	22,958	+3,068	19,890
60,713	+3,978	56,735	+1,071	55,664	+5,941	49,723	—15,664	65,387
42,991	+2,816	40,175	+759	39,416	+4,206	35,210	—11,092	46,302
64,930	+65	64,865	—2,719	67,584	+8,400	59,184	—358	59,542
101,584	+3,208	98,376	+807	97,569	+13,182	84,387	—9,754	94,141
58,561	+867	57,694	—2,244	59,938	+4,831	55,107	—14,173	69,280
316,759	**—10,630**	**327,389**	**+2,696**	**324,693**	**—27,903**	**352,596**	**—47,811**	**400,407**
76,452	—1,243	77,695	+1,766	75,929	+5,235	70,694	—11,882	82,576
42,953	—699	43,652	+992	42,660	+2,942	39,718	—6,675	46,393
98,170	—8,618	106,788	—1,943	108,731	—153	108,884	—27,362	136,246
99,184	—70	99,254	+1,881	97,373	—35,927	133,300	—1,892	135,192
943,502	**+92,988**	**850,514**	**+86,889**	**763,625**	**+128,244**	**635,381**	**+39,516**	**595,865**
490,423	**+60,745**	**429,678**	**+63,382**	**366,296**	**+54,652**	**311,644**	**+14,580**	**297,064**
179,077	+21,757	157,320	+40,917	116,403	+25,748	90,655	+6,732	83,923
312	+38	274	+71	203	+45	158	+12	146
45,029	+15,645	29,384	+12,684	16,700	+1,885	14,815	+1,100	13,715
75,050	+7,290	67,760	+1,074	66,686	+8,698	57,988	+4,261	53,727
15,909	+1,545	14,364	+228	14,136	+1,844	12,292	+903	11,389
75,322	+7,316	68,006	+1,079	66,927	+8,730	58,197	+4,276	53,921
43,877	+3,148	40,729	+3,225	37,504	+3,389	34,115	—1,190	35,305
55,847	+4,006	51,841	+4,104	47,737	+4,313	43,424	—1,514	44,938

POPULATION OF ADMINISTRATIVE DIVISIONS

STATEMENT

State, District and Police Station	Population 1951	Variation 1941-51	Population 1941	Variation 1931-41	Population 1931	Variation 1921-31	Population 1921	Variation 1911-21
1	2	3	4	5	6	7	8	9
Uluberia Subdivision—*concld.*	**682,917**	**+22,958**	**659,959**	**+131,785**	**528,174**	**+49,642**	**478,532**	**+25,453**
1 Amta . . .	230,254	—4,697	234,951	+46,863	188,088	+7,240	180,848	+8,656
2 Bagnan . . .	124,463	+9,864	114,599	+21,788	92,811	+13,240	79,571	+1,969
3 Uluberia . . .	158,587	+10,007	148,580	+32,576	116,004	+16,948	99,056	+12,764
4 Shyampur . . .	138,195	+9,035	129,160	+23,510	105,650	+13,548	92,102	+3,590
5 Bauria . . .	81,418	—1,251	32,669	+7,048	25,621	—1,334	26,955	+3,474
PRESIDENCY DIVISION	**13,707,778**	**+2,157,852**	**11,549,926**	**+2,533,688**	**9,016,238**	**+666,043**	**8,350,195**	**+24,901**
7 24-Parganas District .	**4,609,309**	**+939,819**	**3,669,490**	**+780,796**	**2,888,694**	**+251,984**	**2,636,710**	**+158,875**
Sadar Subdivision .	**1,513,948**	**+288,463**	**1,225,485**	**+279,453**	**946,032**	**+87,321**	**858,711**	**+55,968**
1 Bishnupur . . .	143,583	+12,497	131,086	+25,639	105,447	+8,577	96,870	+5,102
2 Budge-Budge . . .	147,123	—18,097	165,220	+42,208	123,012	+12,688	110,324	+14,350
3 Behala . . .	113,379	+43,897	69,482	+25,414	44,068	+6,173	37,895	+2,165
4 Metiabruz . . .	129,031	+26,163	102,868	+36,909	65,959	+9,751	56,208	+1,098
5 Tollyganj . . .	194,583	+113,959	80,624	+36,986	43,638	+3,927	39,711	+4,606
6 Sonarpur . . .	88,413	+6,889	81,524	+16,947	64,577	+8,781	55,796	+3,005
7 Baruipur . . .	105,321	+4,456	100,865	+14,046	86,819	+4,163	82,656	+4,451
8 Jaynagar . . .	196,047	+21,590	174,457	+28,168	146,289	+15,359	130,930	+7,064
9 Canning . . .	188,216	+37,604	150,612	+18,980	131,632	+16,105	115,527	+6,222
10 Bhangar . . .	115,057	+874	114,183	+21,393	92,790	—631	93,421	+4,851
11 Maheshtala . . .	93,195	+38,631	54,564	+12,763	41,801	+2,428	39,373	+3,054
Basirhat Subdivision .	**713,619**	**+119,542**	**594,077**	**+101,860**	**492,217**	**+33,697**	**458,520**	**+30,144**
1 Basirhat . . .	137,951	+12,787	125,164	+18,587	106,577	+7,274	99,303	+583
2 Baduria . . .	89,592	+5,908	83,684	+7,206	76,478	—1,545	78,023	—3,133
3 Swarupnagar . . .	62,000	+4,458	57,542	+3,386	54,156	—4,281	58,437	—2,847
4 Haroa . . .	102,374	+11,629	90,745	+14,906	75,839	+1,388	74,451	+11,712
5 Hasnabad . . .	145,436	+29,198	116,238	+25,366	90,872	+4,143	86,729	+13,648
6 Sandeshkhali . . .	176,266	+55,562	120,704	+32,409	88,295	+26,718	61,577	+9,686
Barasat Subdivision .	**393,980**	**+76,719**	**317,261**	**+45,800**	**271,461**	**—8,686**	**280,147**	**—12,644**
1 Barasat . . .	119,442	+20,378	99,064	+16,277	82,787	—1,339	84,126	—2,819
2 Habra . . .	111,252	+40,534	70,718	+6,778	63,940	—6,639	70,579	—3,741
3 Deganga . . .	71,792	+7,092	64,700	+7,258	57,442	—954	58,396	—3,836
4 Amdanga . . .	40,838	+4,642	36,196	+3,594	32,602	—920	33,522	—1,124
5 Rajarhat . . .	50,656	+4,073	46,583	+11,893	34,690	+1,166	33,524	—1,124
Bangaon Subdivision .	**208,742**	**+75,638**	**133,104**	**+14,156**	**118,948**	**—13,403**	**132,351**	**—13,825**
1 Bangaon . . .	152,184	+58,168	94,016	+8,600	85,416	—8,204	93,620	—10,516
2 Gaighata . . .	56,558	+17,470	39,088	+5,556	33,532	—5,199	38,731	—3.309
Barrackpur Subdivision	**877,900**	**+297,905**	**579,995**	**+170,410**	**409,585**	**+62,807**	**346,778**	**+54,254**
1 Barrackpur . . .	16,189	+5,211	10,978	—4	10,982	—756	11,738	+253
2 Dum Dum . . .	95,590	+52,098	43,492	+11,801	31,691	+6,052	25,639	—1,248
3 Titagarh . . .	121,798	+24,477	97,321	+31,079	66,242	—7,630	73,872	+11,289
4 Jagaddal . . .	152,624	+23,014	129,610	+34,406	95,204	+20,780	74,424	+16,098
5 Naihati . . .	75,596	+23,841	51,755	+18,703	33,052	+9,719	23,333	+4,877
6 Bijpur . . .	105,185	+46,850	58,335	+15,275	43,060	+10,962	32,098	+7,113
7 Khardah . . .	81,464	+37,072	44,392	+12,713	31,679	+9,636	22,043	—422
8 Noapara . . .	75,077	+27,961	47,116	+16,825	30,291	+1,762	28,529	+5,102
9 Baranagar . . .	154,377	+57,381	96,996	+29,612	67,384	+12,282	55,102	+11,192
Diamond Harbour Subdivision	**901,120**	**+82,811**	**818,309**	**+168,613**	**649,696**	**+89,493**	**560,203**	**+44,478**
1 Diamond Harbour . .	128,741	+13,511	115,230	+23,722	91,508	+12,946	78,562	+27
2 Falta . . .	89,112	+7,293	81,819	+15,827	65,992	+7,826	58,166	+865
3 Mathurapur . . .	202,100	+26,933	175,167	+42,403	132,764	+24,739	108,025	+20,379
4 Kakdwip . . .	97,819	+11,008	86,811	+21,007	65,804	+13,834	51,970	+6,600
5 Sagar . . .	51,463	+6,522	44,941	+13,436	31,505	+12,060	19,445	+2,470
6 Kulpi . . .	140,187	+8,649	131,538	+19,035	112,503	+9,549	102,954	+13,075
7 Magrahat . . .	191,698	+8,895	182,803	+33,183	149,620	+8,539	141,081	+1,062
24-Parganas Forest Division .	**(a)2,496**	..	**1,259**	**+504**	**755**	..	*	..
8 Calcutta District .	**2,548,677**	**+439,786**	**2,108,891**	**+968,029**	**1,140,862**	**+109,165**	**1,031,697**	**+33,685**
1 Shampukur . . .	128,412	+17,929	110,483	+43,850	66,633	+9,627	57,006	+3,970
2 Kumartuli . . .	75,278	+8,489	66,789	+28,495	38,294	+4,310	33,984	+911
3 Burtolla . . .	126,384	+21,841	104,543	+37,436	67,107	+5,924	61,183	+6,573
4 Sukea Street . . .	109,488	+10,348	99,140	+45,039	54,101	—1,271	55,372	+7,260
5 Jorabagan . . .	120,200	+14,479	105,721	+66,366	39,355	—13,218	52,573	+459
6 Jorasanko . . .	119,070	+15,798	103,272	+57,156	46,116	—11,160	57,276	—2,265
7 Bara Bazar . . .	53,846	—753	54,599	+35,909	18,690	—14,269	32,959	+2,464
8 Colootola . . .	90,203	+116	90,087	+41,089	48,998	+10,488	38,510	—18,584
9 Muchipara . . .	136,446	—429	136,875	+56,271	80,604	+10,934	69,670	+6,308
10 Bowbazar . . .	40,794	+3,595	37,199	+16,124	21,075	—6,035	27,110	+2,096
11 Puddapukur . . .	64,006	+1,283	62,723	+27,400	35,323	+2,685	32,638	+2,672
12 Waterloo Street . .	18,799	+8,060	10,739	+4,028	6,711	—395	7,106	+822
13 Fenwick Bazar . .	51,217	—889	52,106	+21,131	30,975	+4,864	26,111	—2,825
14 Taltola . . .	69,254	—1,159	70,413	+31,986	38,427	+6,763	31,664	—448
15 Kalinga . . .	25,107	+5,759	19,348	+5,296	14,052	+2,305	11,747	+362
16 Park Street . . .	10,022	+2,482	7,540	+2,102	5,438	+1,662	3,776	—1,518
17 Baman Bustee . .	6,351	+2,326	4,025	+1,310	2,679	—468	3,147	+22

(a) Figures are included in different Police Stations.
* Figure included in Sandeshkhali P. S.

I.197—contd.

Population 1911	Variation 1901-11	Population 1901	Variation 1891-1901	Population 1891	Variation 1881-91	Population 1881	Variation 1872-81	Population 1872
10	11	12	13	14	15	16	17	18
453,079	**+32,243**	**420,836**	**+23,507**	**397,329**	**+73,592**	**323,737**	**+24,936**	**298,801**
177,192	+10,253	166,939	+3,893	163,046	+53,078	109,968	—406	110,374
77,602	+5,163	72,439	+3,607	68,832	+5,269	63,563	+5,465	58,098
86,292	+10,064	76,228	+7,291	68,937	+4,993	63,944	+8,992	54,952
88,512	+4,025	84,487	+6,732	77,755	+8,894	68,861	+8,438	60,423
23,481	+2,738	20,743	+1,984	18,759	+1,358	17,401	+2,447	14,954
8,325,294	**+731,545**	**7,593,749**	**+633,088**	**6,960,661**	**+517,194**	**6,443,467**	**+436,571**	**6,006,896**
2,478,335	**+322,354**	**2,155,981**	**+167,282**	**1,988,699**	**+180,304**	**1,808,395**	**+112,486**	**1,695,909**
802,743	**+102,287**	**700,456**	**+72,258**	**628,198**	**+54,688**	**573,510**	**+16,824**	**556,686**
91,768	+7,774	83,994	+4,914	79,080	+7,363	71,717	—2,512	74,229
95,974	+13,622	82,352	+10,069	72,283	+9,747	62,536	+3,404	59,132
35,730	+5,190	30,540	+368	30,172	+3,157	27,015	—2,775	29,790
55,110	+17,122	37,988	+458	37,530	+3,926	33,604	—3,452	37,056
35,105	+5,737	29,368	+354	29,014	+3,035	25,979	—2,668	28,647
52,791	+5,608	47,183	+6,420	40,763	+4,343	36,420	+2,065	34,355
78,205	+8,308	69,897	+9,510	60,387	+6,434	53,953	+3,060	50,893
123,866	+15,897	107,969	+16,949	91,020	+14,880	76,140	+7,796	68,344
109,305	+11,611	97,694	+13,293	84,401	+8,992	75,409	+4,276	71,133
88,570	+11,145	77,425	+9,488	67,937	—10,915	78,852	+10,905	67,947
36,319	+273	36,046	+435	35,611	+3,726	31,885	—3,275	35,160
428,376	**+54,969**	**373,407**	**+26,269**	**347,138**	**+24,077**	**323,061**	**+54,915**	**268,146**
98,720	+11,795	86,925	+8,376	78,549	+2,212	76,337	+4,170	72,167
81,156	+5,548	75,608	+3,299	72,309	—2,138	74,447	+9,478	64,969
60,784	+4,156	56,628	+2,471	54,157	—1,601	55,758	+7,098	48,660
62,739	+11,187	51,552	+4,052	47,500	+8,557	38,943	+11,420	27,523
73,086	+13,031	60,055	+4,720	55,335	+9,969	45,366	+13,303	32,063
51,891	+9,252	42,639	+3,351	39,288	+7,078	32,210	+9,446	22,764
292,791	**+28,629**	**264,162**	**+61,527**	**202,635**	**+7,023**	**195,612**	**+2,387**	**193,225**
86,945	+9,974	76,971	+34,914	42,057	+1,361	40,696	—2,554	43,250
74,320	+3,682	70,638	—645	71,283	+2,318	68,965	+1,627	67,338
62,232	+7,024	55,208	—568	55,776	+2,260	53,516	+5,348	48,168
34,646	+3,974	30,672	+13,913	16,759	+542	16,217	—1,017	17,234
34,648	+3,975	30,673	+13,913	16,760	+542	16,218	—1,017	17,235
146,176	**—4,583**	**150,759**	**—6,236**	**156,995**	**—13,948**	**170,943**	**+18,866**	**152,077**
104,136	—3,371	107,507	—4,221	111,728	—8,992	120,720	+11,710	109,010
42,040	—1,212	43,252	—2,015	45,267	—4,956	50,223	+7,156	43,067
292,524	**+86,075**	**206,449**	**—38,267**	**244,716**	**+43,777**	**200,939**	**—15,668**	**216,607**
11,485	+1,597	9,888	+1,548	8,340	+803	7,537	—750	8,287
26,887	+3,298	23,589	—30,316	53,905	+22,327	31,578	—2,713	34,291
62,583	+36,841	25,742	+4,029	21,713	+2,090	19,623	—1,953	21,576
58,326	+20,741	37,585	—11,747	49,332	+5,223	44,109	—5,224	49,333
18,456	+2,976	15,480	—4,839	20,319	+2,152	18,167	—2,152	20,319
24,985	+12,471	12,514	—3,911	16,425	+1,739	14,686	—1,740	16,426
22,465	—563	23,028	+3,604	19,424	+1,869	17,555	—1,747	19,302
23,427	+3,452	19,975	—1,005	20,980	+3,278	17,702	—1,762	19,464
43,910	+5,262	38,648	+4,370	34,278	+4,296	29,982	+2,373	27,609
515,725	**+54,977**	**460,748**	**+57,868**	**402,880**	**+58,550**	**344,330**	**+35,162**	**309,168**
78,535	+7,850	70,685	+7,255	63,430	+10,602	52,828	+3,956	48,872
57,301	+4,898	52,403	+2,588	49,815	+6,360	43,455	+298	43,157
87,646	+15,509	72,137	+13,499	58,638	+8,185	50,453	+6,970	43,483
45,370	+5,104	40,266	+8,511	31,755	+4,836	26,919	+4,520	22,399
16,975	+1,910	15,065	+3,184	11,881	+1,809	10,072	+1,691	8,381
89,879	+10,111	79,768	+16,860	62,908	+9,580	53,328	+8,954	44,374
140,019	+9,595	130,424	+5,971	124,453	+17,178	107,275	+8,773	98,502
..	..	**(a)2,196**	..	**6,137**	..	..	..	..
998,012	**+77,079**	**920,933**	**+179,044**	**741,889**	**+93,399**	**648,490**	**—20,936**	**669,426**
53,036	+6,149	46,887	+10,002	36,885	+8,374	28,511	—337	28,848
33,073	+2,918	30,155	+3,541	26,614	+932	25,682	—8,342	34,024
54,610	+4,394	50,216	+13,785	36,431	+7,496	28,935	—988	29,923
48,112	+6,078	42,034	+7,206	34,828	+10,423	24,405	—631	25,036
52,114	+3,045	49,069	+9,889	39,180	+2,862	36,318	—2,758	39,076
59,541	+6,553	52,988	+11,331	41,657	+8,833	32,824	—3,205	36,029
30,495	—1,079	31,574	+10,928	20,646	—123	20,769	—2,734	23,503
57,094	—6,076	63,170	+12,389	50,781	+3,458	47,323	—3,482	50,805
63,362	—754	64,116	+14,644	49,472	+5,891	43,581	—58	43,639
25,014	—2,038	27,052	+4,384	22,668	+1,041	21,627	—1,916	23,543
29,966	+1,906	28,060	+7,299	20,761	+245	20,516	+30	20,486
6,284	—18	6,302	+370	5,932	+147	5,785	+81	5,704
28,436	—2,772	31,208	+2,842	28,366	+2,468	25,898	—889	26,787
32,112	—125	32,237	+3,030	29,207	+3,144	26,063	—1,049	27,112
11,385	—5,395	16,780	+3,562	13,218	+1,378	11,840	—933	12,773
5,294	—816	6,110	+1,490	4,620	—348	4,968	+402	4,566
3,125	—2,329	5,454	+856	4,598	—1,527	6,125	—443	6,568

POPULATION OF ADMINISTRATIVE DIVISIONS

STATEMENT

State, District and Police Station	Population 1951	Variation 1941-51	Population 1941	Variation 1931-41	Population 1931	Variation 1921-31	Population 1921	Variation 1911-21
1	2	3	4	5	6	7	8	9
8 Calcutta District—concld.								
18 Tangra . . .	40,935	+12,826	28,109	+16,337	11,772	+1,609	10,163	+53
19 Entally . . .	89,351	+15,311	74,040	+29,816	44,224	+6,043	38,181	+198
20 Beniapukur . .	76,907	+445	76,462	+35,875	40,587	+5,546	35,041	+181
21 Ballyganj . .	84,029	+21,510	62,519	+31,754	30,765	+8,882	21,883	+4,691
22 Bhawanipur . .	118,701	+21,237	97,464	+36,602	60,862	+17,037	43,825	+2,146
23 Kalighat . .	54,098	+8,531	45,567	+26,745	18,822	+5,269	13,553	+663
24 Alipur . . .	68,704	+22,372	46,332	+17,369	28,963	+7,189	21,774	+2,025
25 Ekbalpur . . .	93,064	+34,098	58,966	+26,144	32,822	+1,402	31,420	+9,551
26 Watganj and Hastings	69,621	+16,458	53,163	+20,700	32,463	—6,299	38,762	—10,594
27 Tollyganj . . .	192,989	+62,678	130,311	+89,581	40,730	+11,759	28,971	+6,211
28 Belliaghata . .	93,772	+34,223	59,549	+26,314	33,235	+3,631	29,604	+5,978
29 Manicktola . .	124,491	+38,011	86,480	+44,081	42,399	+4,631	37,768	+7,627
30 Belgachia . .	44,924	+10,917	34,007	+11,755	22,252	+3,949	18,303	+2,680
31 Satpukur . .	60,306	+24,029	36,277	+17,083	19,194	+3,406	15,788	+2,319
32 Cossipur . . .	69,152	+23,381	45,771	+18,558	27,213	+4,830	22,383	+3,288
33 Fort William and Maidan	9,113	+4,498	4,615	+241	4,374	+1,208	3,166	—1,245
34 Port . . .	17,481	—14,392	31,873	—1,829	33,702	+15,261	18,441	—8,440
35 Canals . . .	1,162	—622	1,784	—121	1,905	+1,066	839	—2,426
9 Nadia District . .	**1,144,924**	**+304,621**	**840,303**	**+118,396**	**721,907**	**+10,201**	**711,706**	**—64,280**
Sadar Subdivision .	**702,871**	**+128,608**	**574,263**	**+87,885**	**486,378**	**+25,724**	**460,654**	**—49,639**
1 Krishnagar . .	157,981	+66,378	91,603	+15,819	75,784	+4,053	71,731	—5,875
2 Nabadwip . .	91,380	+37,172	54,208	+14,246	39,962	+5,842	34,120	—2,794
3 Chapra . . .	77,675	+7,354	70,321	+7,331	62,990	+3,727	59,263	—4,853
4 Krishnaganj . .	88,696	+4,594	84,102	+5,256	28,846	+354	28,492	—7,260
5 Nakasipara . .	81,747	+14,920	66,827	+10,078	56,749	+3,851	52,898	—3,265
6 Kaliganj . .	77,305	+13,914	63,391	+10,144	53,247	+5,833	47,414	—5,708
7 Tehatta . . .	90,402	—2,137	92,539	+12,456	80,083	—3,358	83,441	—8,820
8 Karimpur . .	87,085	—13,587	101,272	+12,555	88,717	+5,422	83,295	—11,055
Ranaghat Subdivision .	**442,053**	**+176,013**	**266,040**	**+30,511**	**235,529**	**—15,523**	**251,052**	**—14,641**
1 Ranaghat . .	151,852	+69,779	82,073	+10,085	71,988	—3,164	75,152	—5,286
2 Chakdah . .	117,495	+53,633	63,862	+8,656	55,206	—6,597	61,803	—947
3 Haringhata . .	37,927	+10,429	27,498	+3,137	24,361	—3,824	28,185	—432
4 Hanskhali . .	55,115	+17,594	37,521	+712	36,809	—3,201	40,010	—4,931
5 Santipur . .	79,664	+24,578	55,086	+7,921	47,165	+1,263	45,902	—3,045
10 Murshidabad District	**1,715,759**	**+75,229**	**1,640,530**	**+269,853**	**1,370,677**	**+146,496**	**1,224,181**	**—120,892**
Sadar Subdivision .	**544,228**	**+44,479**	**499,749**	**+95,244**	**404,505**	**+23,370**	**381,135**	**—38,994**
1 Berhampur Town .	137,823	+27,940	109,883	+25,430	84,453	+4,630	79,823	—6,548
2 Beldanga . .	151,339	+6,705	144,634	+29,953	114,681	+6,286	108,395	—8,891
3 Nawada . . .	58,652	+1,202	57,450	+10,869	46,581	+1,142	45,439	—5,340
4 Hariharpara . .	58,570	+3,501	55,069	+9,346	45,723	—1,054	46,777	—6,574
5 Domkal . . .	82,804	+6,301	76,503	+12,988	63,515	+6,677	56,838	—6,570
6 Jalangi . . .	55,040	—1,170	56,210	+6,658	49,552	+5,689	43,863	—5,071
Lalbagh Subdivision .	**393,871**	**+29,986**	**363,885**	**+53,750**	**310,135**	**+41,218**	**268,917**	**—25,030**
1 Murshidabad . .	44,571	+1,342	43,229	+5,309	37,920	+2,079	35,841	—2,940
2 Jiaganj . . .	29,130	+6,033	23,097	+5,613	17,484	—636	18,120	—1,790
3 Nabagram . .	60,443	+3,822	56,621	+4,303	52,318	+6,335	45,983	—3,850
4 Lalgola . . .	78,247	+7,584	70,663	+13,160	57,503	+7,834	49,669	—8,903
5 Bhagwangola . .	89,808	+10,649	79,159	+15,049	64,110	+4,064	60,046	+792
6 Raninagar . .	91,672	+556	91,116	+10,316	80,800	+21,542	59,258	—8,339
Jangipur Subdivision .	**431,979**	**+20,361**	**411,618**	**+68,720**	**342,898**	**+49,584**	**293,314**	**—36,190**
1 Farakka . . .	58,791	+5,476	53,315	+7,280	46,035	+5,572	40,463	—5,014
2 Samserganj . .	74,324	+6,922	67,402	+9,204	58,198	+7,045	51,153	—6,839
3 Suti . . .	91,686	—488	92,174	+16,772	75,402	+13,347	62,055	—4,042
4 Raghunathganj .	132,633	+4,746	127,887	+28,070	99,817	+14,441	85,376	—12,714
5 Sagardighi . .	74,545	+3,705	70,840	+7,394	63,446	+9,179	54,267	—8,081
Kandi Subdivision .	**345,681**	**—19,597**	**365,278**	**+52,139**	**313,139**	**+32,324**	**280,815**	**—20,678**
1 Kandi . . .	71,436	—4,171	75,607	+10,391	65,216	+8,003	57,213	—4,582
2 Khargram . .	81,902	+40	81,862	+10,086	71,776	+7,571	64,205	—4,344
3 Burwan . . .	81,917	—5,627	87,544	+13,256	74,288	+5,597	68,691	—5,687
4 Bharatpur . . .	110,426	—9,839	120,265	+18,406	101,859	+11,153	90,706	—6,115
11 Malda District .	**937,580**	**+93,265**	**844,315**	**+123,875**	**720,440**	**+34,266**	**686,174**	**—12,373**
Sadar Subdivision . .	**937,580**	**+93,265**	**844,315**	**+123,875**	**720,440**	**+34,266**	**686,174**	**—12,373**
1 Englishbazar . .	93,872	+10,333	83,539	+13,888	69,651	+6,742	62,909	—10,682
2 Kaliachak . .	226,184	+31,860	194,324	+29,750	164,574	+6,746	157,828	—6,973
3 Malda . . .	37,420	+3,442	33,978	+3,394	30,584	—2,123	32,707	—1,674
4 Habibpur . .	72,193	+19,886	52,307	+3,338	48,969	+1,555	47,414	—2,427
5 Ratua . . .	115,834	+12,849	102,985	+17,192	85,793	+4,720	81,073	—3,569
6 Manikchak . .	77,587	+12,801	64,786	+8,304	56,482	+1,245	55,237	—2,446
7 Kharba . . .	100,498	—2,564	103,062	+19,468	83,594	+3,078	80,516	—1,883
8 Harishchandrapur .	101,156	+1,182	99,974	+17,378	82,596	+10,751	71,845	+14,773
9 Gajol . . .	73,171	—216	73,387	+6,364	67,023	+1,250	65,773	+1,721
10 Bamangola . .	39,665	+3,692	35,973	+4,799	31,174	+302	30,872	+807

OF WEST BENGAL WITH VARIATION, 1872—1951

I.167—contd.

Population 1911	Variation 1901-11	Population 1901	Variation 1891-1901	Population 1891	Variation 1881-91	Population 1881	Variation 1872-81	Population 1872
10	11	12	13	14	15	16	17	18
10,110	+1,965	8,145	+1,209	6,936	+1,351	5,585	—212	5,797
37,983	+7,384	30,599	+4,540	26,059	+5,077	20,982	—795	21,777
34,860	+6,776	28,084	+4,167	23,917	+4,660	19,257	—729	19,986
17,192	+5,484	11,708	+1,883	9,825	+1,036	8,789	—1,251	10,040
41,679	+3,764	37,915	+5,385	32,530	+3,505	29,025	+675	28,350
12,890	+1,164	11,726	+1,665	10,061	+1,084	8,977	+209	8,768
19,749	+2,031	17,718	+2,914	14,804	+1,366	13,438	—5,981	19,419
21,869	+261	21,608	+6,268	15,340	—529	15,869	—2,205	18,074
49,356	+5,519	43,837	+12,184	31,653	—1,382	33,035	+4,852	28,183
22,760	+7,261	15,499	+2,493	13,006	+1,372	11,634	—1,655	13,289
23,626	+9,395	14,231	+1,857	12,374	+8,029	4,345	—509	4,854
30,141	+11,985	18,156	+2,369	15,787	+10,243	5,544	—650	6,194
15,614	+2,407	13,207	+3,023	10,184	+1,663	8,521	+300	8,221
13,469	+2,077	11,392	+2,607	8,785	+1,433	7,352	+258	7,094
19,095	+2,944	16,151	+3,697	12,454	+2,033	10,421	+367	10,054
4,411	+1,081	3,330	—289	3,619	+280	3,339	+856	2,483
26,890	—2,878	29,768	+3,179	26,589	—1,611	28,200	+11,540	16,660
3,265	—1,182	4,447	+2,345	2,102	—905	3,007	+1,246	1,761
775,986	**+2,784**	**773,202**	**+186**	**773,016**	**—35,076**	**808,092**	**+61,208**	**746,884**
510,293	**—3,055**	**513,348**	**+7,732**	**505,616**	**—15,931**	**521,547**	**+41,665**	**479,882**
77,606	+3,159	74,447	—1,908	76,355	—3,139	79,494	+10,940	68,554
36,914	+1,503	35,411	—907	36,318	—1,492	37,810	+5,203	32,607
64,116	+2,610	61,506	—1,576	63,082	—2,592	65,674	+9,038	56,636
35,752	—1,929	37,681	+5,023	32,658	—43	32,701	+2,991	29,710
56,163	—556	56,719	+334	56,385	—3,377	59,762	+3,860	55,902
53,122	+330	52,792	+5,947	46,845	—7,347	54,192	+3,559	50,633
92,270	—1,578	93,848	+6,727	87,121	—2,039	89,160	+660	88,500
94,350	—6,594	100,944	—5,908	106,852	+4,098	102,754	+5,414	97,340
265,693	**+5,839**	**259,854**	**—7,546**	**267,400**	**—19,145**	**286,545**	**+19,543**	**267,002**
80,438	+4,294	76,144	—1,163	77,307	—7,108	84,415	+4,653	79,762
62,750	—5	62,755	—5,076	67,831	—2,858	70,689	+4,227	66,462
28,617	—2	28,619	—2,315	30,934	—1,303	32,237	+1,928	30,309
44,941	+2,164	42,777	+5,413	37,364	—7,976	45,340	+5,306	40,034
48,947	—612	49,559	—4,405	53,964	+100	53,864	+3,429	50,435
1,345,073	**+22,587**	**1,322,486**	**+71,540**	**1,250,946**	**+24,156**	**1,226,790**	**+12,686**	**1,214,104**
420,129	**—10,260**	**430,389**	**+29,387**	**401,002**	**+4,083**	**396,919**	**+487**	**396,432**
86,371	—538	86,909	+8,733	78,176	+262	77,914	—1,578	79,492
117,286	—731	118,017	+11,858	106,159	+356	105,803	—2,143	107,946
50,779	—1,038	51,817	+3,039	48,778	+1,219	47,559	+5,095	42,464
53,351	—3,830	57,181	+2,123	55,058	—2,077	57,135	—569	57,704
63,408	—2,327	65,735	+2,051	63,684	+2,440	61,244	—180	61,424
48,934	—1,796	50,730	+1,583	49,147	+1,883	47,264	—138	47,402
293,947	**+2,802**	**291,145**	**—15,298**	**306,443**	**+8,448**	**297,995**	**—8,965**	**306,960**
38,781	—242	39,023	+3,921	35,102	+117	34,985	—708	35,693
19,910	—5,358	25,268	—4,580	29,848	—1,039	30,887	—5,251	36,138
49,833	+3,625	46,208	+4,642	41,566	+140	41,426	—839	42,265
58,572	+4,294	54,278	—6,436	60,714	+5,678	55,036	+5,914	49,122
59,254	+3,162	56,092	+2,502	53,590	—3,648	57,238	—3,937	61,175
67,597	—2,679	70,276	—15,347	85,623	+7,200	78,423	—4,164	82,587
329,504	**+16,479**	**313,025**	**+27,136**	**285,889**	**+8,986**	**276,903**	**+32,164**	**244,739**
45,477	+6,236	39,241	+4,183	35,058	+4,347	30,711	+5,474	25,237
57,492	+7,884	49,608	+5,288	44,320	+5,495	38,825	+6,920	31,905
66,097	+2,810	63,287	—5,550	68,837	+2,281	66,556	+17,147	49,409
98,090	—276	98,366	+14,193	84,173	—1,918	86,091	+1,604	84,487
62,348	—175	62,523	+9,022	53,501	—1,219	54,720	+1,019	53,701
301,493	**+13,566**	**287,927**	**+30,315**	**257,612**	**+2,639**	**254,973**	**—10,980**	**265,953**
61,745	+3,609	58,136	+5,842	52,294	+175	52,119	—1,056	53,175
68,549	+4,777	63,772	+7,791	55,981	+1,963	54,018	—6,910	60,928
74,378	+4,572	69,806	+7,014	62,792	+211	62,581	—1,267	63,848
96,821	+608	96,213	+9,668	86,545	+290	86,255	—1,747	88,002
698,547	**+94,898**	**603,649**	**+56,359**	**547,290**	**+77,166**	**470,124**	**+20,654**	**449,470**
698,547	**+94,898**	**603,649**	**+56,359**	**547,290**	**+77,166**	**470,124**	**+20,654**	**449,470**
73,591	+3,242	70,349	—4,678	75,027	+8,881	66,146	—511	66,657
164,801	+16,600	148,201	+18,546	129,655	+13,963	115,692	—3,683	119,375
34,381	+4,847	29,534	+5,504	24,030	+3,254	20,776	+135	20,641
49,841	+7,027	42,814	+7,978	34,836	+4,718	30,118	+196	29,922
84,662	+15,358	69,304	+5,538	63,766	+16,452	47,314	+8,559	38,755
57,683	+10,465	47,218	+3,135	44,083	+11,373	32,710	+5,917	26,793
82,399	+11,589	70,810	+6,681	64,129	+5,174	58,955	+6,316	52,639
57,072	+9,480	47,592	—374	47,966	+3,870	44,096	+4,724	39,372
64,052	+11,086	52,966	+9,548	43,418	+6,452	36,966	—680	37,646
30,065	+5,204	24,861	+4,481	20,380	+3,029	17,351	—319	17,670

POPULATION OF ADMINISTRATIVE DIVISIONS

STATEMENT

State, District and Police Station 1	Population 1951 2	Variation 1941-51 3	Population 1941 4	Variation 1931-41 5	Population 1931 6	Variation 1921-31 7	Population 1921 8	Variation 1911-21 9
12 West Dinajpur District	**720,573**	**+137,089**	**583,484**	**+59,507**	**523,977**	**+33,543**	**490,434**	**—19,123**
Balurghat Subdivision	**328,114**	**+76,798**	**251,316**	**+31,578**	**219,738**	**+24,041**	**195,697**	**—9,088**
1 Hili	38,787	+13,341	25,446	+3,358	22,088	+1,428	20,660	—609
2 Balurghat	101,471	+34,901	66,570	+8,783	57,787	+3,737	54,050	—1,595
3 Kumarganj	55,905	+9,872	46,033	+4,272	41,761	+13,022	28,739	—848
4 Tapan	70,644	+10,269	60,375	+10,532	49,843	+571	49,272	—3,224
5 Gangarampur	61,307	+8,415	52,892	+4,633	48,259	+5,283	42,976	—2,812
Raiganj Subdivision	**392,459**	**+60,291**	**332,168**	**+27,929**	**304,239**	**+9,502**	**294,737**	**—10,085**
1 Bansihari	51,276	+1,254	50,022	+3,343	46,679	+2,369	44,310	—2,501
2 Kushmandi	56,314	+3,124	53,190	+1,324	51,866	+1,811	50,055	—2,826
3 Kaliaganj	67,366	+5,941	61,425	+511	60,914	+2,024	58,890	—1,249
4 Hemtabad	34,680	+5,933	28,747	+1,307	27,440	+679	26,761	—715
5 Raiganj	101,870	+36,317	65,553	+6,519	59,034	—420	59,454	—1,590
6 Itahar	80,953	+7,722	73,231	+14,925	58,306	+3,039	55,267	—1,163
13 Jalpaiguri District	**914,538**	**+68,836**	**845,702**	**+106,542**	**739,160**	**+45,104**	**694,056**	**+32,774**
Sadar Subdivision	**546,142**	**+21,258**	**524,884**	**+58,797**	**466,087**	**+15,262**	**450,825**	**—7,756**
1 Jalpaiguri	115,459	+15,090	100,369	+14,848	85,521	+5,569	79,952	—5,831
2 Rajganj	51,723	+596	51,127	+1,722	49,405	—5,728	55,133	—994
3 Mainaguri	88,315	—5,746	94,061	+15,794	78,267	—3,180	81,447	—816
4 Nagrakata	42,389	+2,415	39,974	+513	39,461	+1,512	37,949	—381
5 Dhupguri	110,910	+9,322	101,588	+13,418	88,170	+8,921	79,249	—794
6 Mal	88,158	—6,970	95,128	+11,180	83,948	+321	83,627	+757
7 Matiali	49,188	+6,551	42,637	+1,322	41,315	+7,847	33,468	+303
Alipur Duars Subdivision	**368,396**	**+47,578**	**320,818**	**+47,745**	**273,073**	**+29,842**	**243,231**	**+40,530**
1 Madarihat	59,486	+6,069	53,417	+6,551	46,866	+6,797	40,069	+4,169
2 Falakata	55,700	+3,306	52,394	+5,410	46,984	+2,093	44,891	+4,670
3 Kalchini	85,609	+7,756	77,853	+15,607	62,246	+13,475	48,771	+9,766
4 Alipur Duars	119,038	+23,543	95,495	+14,612	80,883	+5,902	74,981	+15,013
5 Kumargram	48,563	+6,904	41,659	+5,565	36,094	+1,575	34,519	+6,912
14 Darjeeling District	**445,260**	**+68,891**	**376,369**	**+56,734**	**319,635**	**+36,887**	**282,748**	**+17,198**
Sadar Subdivision	**169,631**	**+22,304**	**147,327**	**+28,149**	**119,178**	**+12,667**	**106,511**	**+3,934**
1 Darjeeling	63,171	+14,438	48,733	+4,637	44,096	+4,936	39,160	+1,446
2 Jore Bungalow	28,944	—3,098	32,042	+10,952	21,090	+3,168	17,922	+662
3 Pulbazar	26,929	+5,609	21,320	+3,310	18,010	+1,721	16,289	+602
4 Sukhiapokri	19,258	+1,041	18,217	+4,038	14,179	+2,916	11,263	+416
5 Rangli Rangliot	31,329	+4,314	27,015	+5,212	21,803	—74	21,877	+808
Kurseong Subdivision	**65,713**	**+5,727**	**59,986**	**+7,990**	**51,996**	**+11,639**	**40,357**	**—850**
1 Kurseong	49,577	+6,657	42,920	+5,231	37,689	+8,436	29,253	—616
2 Mirik	16,136	—930	17,066	+2,759	14,307	+3,203	11,104	—234
Siliguri Subdivision	**116,475**	**+26,461**	**90,014**	**+9,756**	**80,258**	**+4,471**	**75,787**	**+3,541**
1 Siliguri	68,280	+25,917	42,363	+6,395	35,968	+2,029	33,939	+1,586
2 Kharibari	24,876	+660	24,216	+1,071	23,145	+1,306	21,839	+1,020
3 Phansidewa	23,319	—116	23,435	+2,290	21,145	+1,136	20,009	+935
Kalimpong Subdivision	**93,441**	**+14,399**	**79,042**	**+10,839**	**68,203**	**+8,110**	**60,093**	**+10,573**
1 Kalimpong	76,463	+12,556	63,907	+9,066	54,841	+5,277	49,564	+8,720
2 Garubathan	16,978	+1,843	15,135	+1,773	13,362	+2,833	10,529	+1,853
15 Cooch Behar District	**671,158**	**+30,316**	**640,842**	**+49,956**	**590,886**	**—1,603**	**592,489**	**—463**
1 Tufanganj	97,713	+3,011	94,702	+9,555	85,147	+2,184	82,963	+2,816
2 Dinhata	137,000	+5,126	131,874	+9,504	122,370	+532	121,838	—285
3 Sitai	24,054	—4,106	28,160	+1,700	26,460	+115	26,345	—61
4 Cooch Behar	171,865	+21,891	149,974	+17,352	132,622	+288	132,334	+1,792
5 Sitalkuchi	45,755	—1,082	46,837	+2,766	44,071	—1,252	45,323	+554
6 Mathabhanga	102,936	+2,780	100,156	+4,627	95,529	—515	96,044	—1,791
7 Mekliganj	45,255	—268	45,523	—1,883	47,406	—1,570	48,976	—2,569
8 Haldibari	46,580	+2,964	43,616	+6,335	37,281	—1,385	38,666	—859
16 CHANDERNAGORE	**49,909**	**+11,625**	**38,284**	**+11,022**	**27,262**	**+1,839**	**25,423**	**+190**
17 SIKKIM	**137,725**	**+16,205**	**121,520**	**+11,712**	**109,808**	**+28,087**	**81,721**	**—6,199**

1.107—concld.

Population 1911 10	Variation 1901-11 11	Population 1901 12	Variation 1891-1901 13	Population 1891 14	Variation 1881-91 15	Population 1881 16	Variation 1872-81 17	Population 1872 18
509,557	**+53,056**	**456,501**	**+33,196**	**423,305**	**+16,107**	**407,198**	**+5,031**	**402,167**
204,785	**+25,949**	**178,836**	**+24,016**	**154,820**	**+9,668**	**145,152**	**+3,090**	**142,062**
21,269	+2,648	18,621	+3,598	15,023	+912	14,111	+758	13,353
55,645	+6,927	48,718	+9,414	39,304	+2,385	36,919	+1,983	34,936
29,587	+3,683	25,904	+5,005	20,899	+1,268	19,631	+1,054	18,577
52,496	+6,779	45,717	+3,204	42,513	+2,726	39,787	—377	40,164
45,788	+5,912	39,876	+2,795	37,081	+2,377	34,704	—328	35,032
304,772	**+27,107**	**277,665**	**+9,180**	**268,485**	**+6,439**	**262,046**	**+1,941**	**260,105**
46,811	+6,215	40,596	+1,488	39,108	+663	38,445	+1,685	36,760
52,881	+7,020	45,861	+1,681	44,180	+748	43,432	+1,904	41,528
60,130	+5,790	54,340	+2,419	51,921	+2,973	48,948	+80	48,868
27,476	+822	26,654	+410	26,244	—228	26,472	—559	27,031
61,044	+1,826	59,218	+911	58,307	—508	58,815	—1,243	60,058
56,430	+5,434	50,996	+2,271	48,725	+2,791	45,934	+74	45,860
661,282	**+116,376**	**544,906**	**+111,572**	**433,334**	**+116,759**	**316,575**	**+114,916**	**201,659**
458,581	**+33,028**	**425,553**	**+64,666**	**360,887**	**+88,973**	**271,914**	**+94,729**	**177,185**
85,783	+3,459	82,324	—584	82,908	+7,490	75,418	+20,952	54,466
56,127	+4,151	51,976	—2,102	54,078	—4,392	58,470	+11,388	47,082
82,263	+6,950	75,313	+17,897	57,416	+22,021	35,395	+15,998	19,397
38,330	+3,238	35,092	+8,339	26,753	+10,261	16,492	+7,455	9,037
80,043	+6,762	73,281	+17,414	55,867	+21,427	34,440	+15,567	18,873
82,870	+6,048	76,822	+16,927	59,895	+22,972	36,923	+16,690	20,233
33,165	+2,420	30,745	+6,775	23,970	+9,194	14,776	+6,679	8,097
202,701	**+83,348**	**119,353**	**+46,906**	**72,447**	**+27,786**	**44,661**	**+20,187**	**24,474**
35,900	+12,504	23,396	+8,576	14,820	+5,684	9,136	+4,129	5,007
40,221	+14,010	26,211	+9,608	16,603	+6,368	10,235	+4,626	5,609
39,005	+17,513	21,492	+8,851	12,641	+4,848	7,793	+3,523	4,270
59,968	+26,925	33,043	+13,607	19,436	+7,454	11,982	+5,416	6,566
27,607	+12,396	15,211	+6,264	8,947	+3,432	5,515	+2,493	3,022
265,550	**+16,433**	**249,117**	**+25,803**	**223,314**	**+68,135**	**155,179**	**+60,467**	**94,712**
102,577	**+10,624**	**91,953**	**+12,912**	**79,041**	**+26,723**	**52,318**	**+25,727**	**26,591**
37,714	+3,906	33,808	+4,747	29,061	+9,825	19,236	+9,459	9,777
17,260	+1,788	15,472	+2,173	13,299	+4,496	8,803	+4,329	4,474
15,687	+1,625	14,062	+1,975	12,087	+4,087	8,000	+3,934	4,066
10,847	+1,123	9,724	+1,365	8,359	+2,826	5,533	+2,721	2,812
21,069	+2,182	18,887	+2,652	16,235	+5,489	10,746	+5,284	5,462
41,207	**—3,980**	**45,187**	**+542**	**44,645**	**+17,708**	**26,937**	**+13,247**	**13,690**
29,869	—2,885	32,754	+393	32,361	+12,836	19,525	+9,602	9,923
11,338	—1,095	12,433	+149	12,284	+4,872	7,412	+3,645	3,767
72,246	**+1,780**	**70,466**	**—2,531**	**72,997**	**+9,756**	**63,241**	**+15,256**	**47,985**
32,353	+797	31,556	—1,134	32,690	+4,369	28,321	+6,832	21,489
20,819	+513	20,306	—729	21,035	+2,811	18,224	+4,396	13,828
19,074	+470	18,604	—668	19,272	+2,576	16,696	+4,028	12,668
49,520	**+8,009**	**41,511**	**+14,880**	**26,631**	**+13,948**	**12,683**	**+6,237**	**6,446**
40,844	+6,606	34,238	+12,273	21,965	+11,504	10,461	+5,144	5,317
8,676	+1,403	7,273	+2,607	4,666	+2,444	2,222	+1,093	1,129
592,952	**+25,978**	**566,974**	**—11,894**	**578,868**	**—23,756**	**602,624**	**+70,059**	**532,565**
80,147	+6,709	73,438	+332	73,106	+7,229	65,877	+15,009	50,868
122,123	+3,806	118,317	—2,404	120,721	—7,203	127,924	+12,022	115,902
26,406	+823	25,583	—520	26,103	—1,557	27,660	+2,600	25,060
130,602	+8,993	121,609	—7,634	129,243	—10,051	139,294	+14,234	125,060
44,769	+760	44,009	—1,178	45,187	—3,252	48,439	+4,553	43,886
97,835	+1,661	96,174	—2,573	98,747	—7,106	105,853	+9,948	95,905
51,545	+1,342	50,203	—801	51,004	—1,162	52,166	+6,965	45,201
39,525	+1,884	37,641	+2,884	34,757	—654	35,411	+4,728	30,683
25,293	**—1,538**	**26,831**	..	..	..	..	..	..
87,920	**+28,906**	**59,014**	**+28,556**	**30,458**	..	..	..	..

SECTION 4

MIGRATION

295. This subject has been considered in the last section for individual districts but it is necessary to take stock of the balance of immigration and emigration in the State as a whole.

296. The ways in which changes in the method of taking the census may have affected the record of migration deserve to be briefly mentioned. Up to and including 1931 the Census was a one-night count, for which, however, preliminary schedules were prepared by enumerators for each numbered house some time before. In very few places was the count non-synchronous or spread over more than one day. The count therefore used to net all types of migration, ranging from casual migrations lasting for a few hours to permanent ones. It was not therefore surprising if internal migration between neighbouring districts was heavy under that mode of enumeration. In 1941 the enumeration period was extended to seven days which served to eliminate casual and very brief migrations between neighbouring districts including a lot of periodic " visiting and staying with relations in the other district ". In 1951 the enumeration period was extended still further to 20 days or about thrice the length of time allowed in 1941. This extension served to eliminate (*a*) all migrations lasting a few hours; (*b*) all brief periods of stay lasting not more than a fortnight with relations in other districts, (*c*) all or nearly all temporary migrations due to journeys on business, visits to fairs and pilgrimages, and the very temporary demands, lasting less than a fortnight, for labour created by the construction of roads, bridges and railway, etc. And since West Bengal is by far and away a state which receives immigrants rather than send out emigrants, quite a sizeable population must have been lost to the census count, owing to the 20-day period, by the exclusion of temporary immigrants, who, under the 1931 or even the 1941 system must have helped to swell the total population of the state.

297. The Superintendent of 1881 had observed that " the natives of the lower provinces of Bengal, taken as a whole, are above all things a domestic stay-at-home people ". This impression was quickly dispelled by his successor in 1891 who remarked that "in view of the more recent statistics of birth-place, this opinion seems to require modification. It is true that there is little emigration in the European sense, across the seas, but I doubt if any nation of the Old World is within its own limits in a more constant state of movement or more ready to change its homes ".

298. Both Superintendents were right, each in his own way. The Superintendent of 1881 was considering the lower provinces of Bengal in making his observation, which in his time had administrative as well as ethnic unity. In addition to present West Bengal and East Bengal, the lower provinces then encompassed almost the whole of present Bihar and Orissa. This area still enjoys an ethnic, cultural and occupational homogeneity by reason of which marriages continue to this day on a large scale across the borders, people cross and recross in search of livelihood and during leave, and even now, although much water has flowed under the bridges in seventy years strengthening administrative boundaries with the help of constitutional, political, legislative, and, recently, ethnical and linguistic barricades, thus helping to raise walls of suspicion and intolerance wherever they find the least encouragement, yet the people of the former lower provinces feel more at home anywhere within it than elsewhere in India. They are bound by the same ties of living, customs, occupational and agricultural tenure, and marriages frequently take husbands and

wives great distances from home, which today would appear to be called inter-state migration but seventy years ago would not be reckoned as migration at all. Areas have shrunk and grown more exclusive.

299. On the other hand, the Superintendent of 1891 was equally right because he was considering migration from the view-point of newly defined administrative districts of the new regime, and not ethnic or culturally homogeneous sectors as a whole. From now onwards migration was reckoned on the basis of the district, and this had a very different administrative, political, and cultural connotation, which started to set up new values and new boundaries of migration. These, with refinements and adjustments from time to time, have continued to this day.

300. Broadly, migrations may be of the following types:

1. *Casual migration* or the minor movements between adjacent districts. These happen for several reasons: (*a*) where an excess of females either way, whether immigration or emigration, is noticed it is due to marriages; (*b*) visiting and staying with near or distant relations for a few days at a time is quite common; (*c*) besides, young married women often go to their parents' home for their first confinement.

2. *Temporary migration* due to journeys on business, visits to fairs and places of pilgrimage, and the temporary demands for labour created in certain places where construction of some sort or other is proceeding. The Saraswati Puja or University examinations or construction of national and provincial highways during the last census are instances in point.

3. *Periodic migration*. such as the annual migration which takes place during the harvest and the annual holiday in jute mills and plantations. As has already been discussed in the Preface a large agricultural labour force which immigrates from Bihar and Orissa during November-January return to their home in February-March. The annual holiday in the jute mills of the industrial area coupled with the demand of agricultural operations in Bihar and Orissa in the spring (*rabi* crops) draws away a large industrial population every year from this State.

4. *Semi-permanent migration*, when people of one place reside and earn their living in another but retain their connexion with their own homes, where they leave their families and to which they return in their old age, and at more or less regular intervals in the meantime. This kind of migration is evidenced by the excess of males in the emigrant population, and is becoming more common as commerce and industry extend and the avenues open to labour or clerical employment grows wider. Apt cases of this type of migrants are civil servants, men in the humane and liberal professions among Bengalis and immigrants from Rajasthan, Ajmer, etc.

5. *Permanent migration, i.e.,* where overcrowding drives people away or the superior attractions of some other locality induce people to settle there. In this case the sexes are more or less equally represented, the new colonisers bringing their wives and families with them. It is most common in sparsely populated tracts such as the Sundarbans in 24-Parganas, the Barind in Malda and West Dinajpur, Alipur Duars and Cooch Behar, where there was until recently plenty of cultivable lands at low rentals.

301. In the Indian Census migration is solely determined by birth place and no other measure is applied to ascertain the period of stay at the place where a person is counted, or the kind of business that has brought him from his birth place or how soon he is likely to return to his place of origin. These are drawbacks which make it impossible to classify migrations in a straight-forward manner according to the five ways mentioned above. A great many conclusions on migration in the past have, therefore, been surmises or at best intelligent inferences from data brought

out by other tables. It is also unfortunate that immigrants are not classified by age groups, let alone single year ages, so that it is impossible to utilise the immigrant population in the calculation of life tables or age analyses except either by totally excluding them or by including them on the argument that they are more or less of the same ethnic, social and economic stock as the natural population and so their inclusion would not throw calculations appreciably out of plumb. Further it has been possible only at this census and in none other in the past to find out accurately how much of the immigrant population lives in the town and how much in the village. Finally, it is only at this census that the eight broad livelihoods of the immigrant population have been tabulated which enables one to find out how much of immigration is absorbed in agricultural and non-agricultural livelihoods. But these findings cannot be compared with previous censuses except by circumlocutory inferences from the urban-rural ratio of immigrants, and the generalities of experience left on record by one's census predecessors. The sex ratio is of course available in a broad way but in the very nature of things it is not always safe to imagine immigrants as a homogeneous lot arranged in families. We have no age data to make such an assumption.

302. Nevertheless, the returns of birth place alone can permit broad but valid conclusions so far as large masses of population are concerned. There will always be some persons who would be born when their parents were sojourning in another country, but their proportion among a large population of immigrants who expressly enter a country in search of a living must be small. This is especially so when persons whose birthplaces are somewhere else foregather in another country in large numbers. It is therefore needless to let a small number of exceptions cloud the issue where a few million immigrants are concerned and it may therefore be presumed that the number of genuine cases answering the analysis below will be large and that of spurious ones small.

303. The direction to the enumerator for recording birth-place was as follows :

> Write 1 for every person born in your district of West Bengal. If the person enumerated was born in some other district of West Bengal, write the name of the district only. If he was born in some other State of the Indian Union, write the name of the State. If he was born somewhere outside the Indian Union, write the name of the country only.

304. As will be noticed it was decided not to record the district of origin in the state from which the immigrant hailed. This was an unfortunate decision inasmuch as it destroyed the opportunity of recording the growth of the natural population of a district between any two censuses, and consequently of estimating more closely the error due to registration of births and deaths on the district level. If it were possible to separate from the total migration-*cum*-registration error the net migration due to a district, its registration error could be ascertained. But this advantage has been denied by the streamlining of the census questionnaire. This information has been discontinued since 1921 as will have been noticed in connexion with the fourth statement for each district in the last section. Information on district of origin in other provinces of India was collected in 1931 but, as a measure of economy, left untouched. Matters have been further complicated by the partition of Bengal. It is therefore no easy task to estimate the natural population of West Bengal in 1931 and 1941 and what has been set down in Subsidiary Tables I.6 and I.7 is at best an estimate instead of a complete count. When emigration for three-eighths of an area which in the past formed one unit is to be estimated, and when that three-eighths has quite a different emigration pattern from the rest, an estimate cannot be close enough.

MIGRATION WITHIN THE STATE

305. Migration can be discussed in three subsections:

- A. Migration within the State betweeen districts and Natural Divisions.
- B. Migration between the State and other parts of India.
- C. Migration between the State and other parts of the world outside India.

A. Migration within the State between Districts and Natural Divisions

306. W. H. Thompson in 1921 coined a phrase, "Viscosity of the population" by which he meant the total number of persons born in the state who were found within it but outside their district of birth. He remarked that "it is an interesting measure, for it gives an impression of the extent to which an originally stay-at-home people, who have been given the advantage of much improved means of communication, have taken to the use of them". It may be observed that while the test is certainly a good thing to apply, the presumption is far from correct as C. J. O'Donnell, the Superintendent of 1891 had already pointed out. The laws of marriage, pilgrimage and social custom obtaining in Bengal have always decreed that there should be a great deal of movement between one part of the country and another and traders, businessmen, artisans, craftsmen, and even agriculturists in Bengal, as migration figures since 1881 have proved, have always travelled far and wide in search of a living, and as will be presently seen, used to migrate a great deal more before than they do now. As a matter of fact agriculturists who are supposed to be very much stay-at-home are great colonisers in West Bengal and still form the greater bulk of interdistrict migrants. The extent of interdistrict migration within the State has been elaborated in the last statement for each district in the foregoing section on growth and movement, but the following consolidated statement will bring out more clearly to what extent the population is 'Viscous'.

STATEMENT I.108

Interdistrict migration in West Bengal, 1921 and 1951

District	Density per sq. mile		Percentage of interdistrict immigration to population of district		Percentage of interdistrict emigration to population of district		Percentage of net migration to population of district immigration (+), emigration (—)	
	1951	1921	1951	1921	1951	1921	1951	1921
Burdwan . . .	810	530	7·0	6·9	5·1	4·9	+1·9	+2·0
Birbhum . . .	612	489	3·1	3·0	13·1	4·1	—10·0	—1·1
Bankura . .	498	385	3·8	1·7	7·1	11·9	—3·3	—10·2
Midnapur . . .	639	508	3·4	0·9	6·0	5·3	—2·6	—4·4
Hooghly . . .	1,286	894	8·1	11·6	7·9	7·7	+0·2	+3·9
Howrah . . .	2,877	1,781	7·6	5·3	9·5	5·3	—1·9	..
24-Parganas . .	817	468	5·5	6·2	2·9	4·3	+2·6	+1·9
Calcutta . . .	78,858	31,921	12·3	30·3	5·7	4·6	+6·6	+25·7
Nadia . . .	759	472	3·8	3·2	5·8	7·0	—2·0	—3·8
Murshidabad . .	828	591	2·7	2·9	4·0	7·2	—1·3	—4·3
Malda . . .	674	493	1·6	3·9	3·3	2·2	—1·7	+1·7
West Dinajpur . .	520	354	2·0	2·5	1·6	1·1	+0·4	+1·4
Jalpaiguri . .	385	292	2·9	5·2	1·1	1·7	+1·8	+3·5
Darjeeling . .	371	236	1·5	3·0	2·8	1·8	—1·3	+1·2
Cooch Behar . .	507	448	0·5	6·3	2·3	4·2	—1·8	+2·1

307. There is no choice but to go as far back as 1921 for a comparative study as neither in 1941 nor in 1931 was tabulation made to show interdistrict migrations. W. H. Thompson in 1921 thought it was remarkable that in spite of the fact that on the whole there was an increase of population in 1921, and improvement in railway communications, a decided decrease was noticeable in the number of persons found outside the districts of their birth. This remarkable and perhaps unexpected conclusion holds good for 1951 even more than for 1921 for in West Bengal as a whole, though not for certain districts individually, the percentages of interdistrict emigration and immigration and net migration between district and district within the State in 1951, are appreciably smaller than those in 1921. Already in 1921 the reduced migration compared to 1911 was the more apparent owing to the influenza epidemic preceding the census which had decimated the population. This may also have been the reason in 1951 on account of the famine, epidemics, and riots during 1941-51. But this cannot be a complete explanation of what has happened. Apart from this, it would seem that the population of West Bengal has shown itself decidedly less and less fluid with the passage of time. It is certainly more immobile than thirty years ago. The causes give scope for much speculation, but it is probable that the effect may have been produced in this manner.

308. The attraction, or otherwise, of district to migration is to be measured rather by the excess of immigration over emigration than by the proportion of immigrants among the population. It is the proportion which the excess of immigrants over emigrants bears to the total number of persons born in each district which is to be considered in relation to economic pressure. In the above statement the densities in 1951 and 1921 are shown for each district and the excess of immigrants over emigrants per cent. of the total population. The industrial districts of Burdwan (Asansol subdivision), Hooghly, 24-Parganas and Calcutta (the borderline state of Hooghly is remarkable), West Dinajpur and Jalpaiguri still stand out as attractive to immigration. But Hooghly and West Dinajpur are almost on the borderline. The remaining districts may be divided in two groups; (*a*) the first where a marked and growing resistance to immigrants is not only noticeable, but on the other hand, there is a larger volume of emigration than in 1921. These are Birbhum, Howrah, Malda, Darjeeling and Cooch Behar. (*b*) The second group comprises Bankura, Midnapur, Nadia and Murshidabad, which send out more emigrants than they receive immigrants; but in their case the pressure of population having greatly increased, and their areas being larger than most, immigrants still flock in the hope of scratching sustenance out of what is believed to be marginal land or culturable waste. The answer to the question why the population of West Bengal is decidedly more immobile today than thirty years ago will be found in the growth of density of every district during 1921-51. It merely confirms what has been pointed out in the section on density that, except for a few very fertile tracts on either side of the Hooghly, the Bhagirathi, or the Ganges, the agricultural and plantation districts of the State persistently refuse to support densities in excess of about 500 per square mile. And wherever that ceiling is exceeded the district adjusts itself by either weathering.a natural calamity or by large emigrations. In districts Bankura, West Dinajpur, Jalpaiguri, Darjeeling and Cooch Behar this ceiling seems to be much less than 600. Until this ceiling was reached the population of the State was largely mobile, but as it came to be gradually reached after 1911, the joints stiffened, the population became less and less mobile until today the demographer is faced with a sorry problem. It strikes one as a bell jar with a population of bees inside. Egress is reduced to a minimum while apart from what are already

inside finding it difficult to sort themselves out for lack of room to turn, a goodly population of immigrants from elsewhere is sometimes introduced. The effect is too obvious to be ignored. West Bengal, as has already been noted in the sections on density and growth, has never had anything but a very low rate of growth compared to other states, and her natural population has grown at a still, almost alarmingly, slower rate. It is needless to repeat what has already been said in the preceding sections. Suffice here to say that an inverse correlation between density of population and attractiveness to immigration very much exists in the agricultural districts since 1901, the fact being that the pressure of the population on the soil in the agricultural districts can be directly measured in terms of the density per square mile. The capabilities of the soil, except for small areas which too are well on the way to saturation, vary but little from one part of the State to another. An inverse correlation can also be noticed in those districts where resistance to immigration has decreased in the last thirty years, between the attraction towards immigration and the increase in the natural population; and there are signs that immigration is employed in making up recent losses in the natural population. The direct correlation between the attraction to migrate and increase in natural population is noticeable only in some of the 26 exceptionally prosperous police stations noticed in the section on density but seldom elsewhere. The parts of the State which have attracted immigrants in former decades continue to do so not because of the capabilities of the soil but because of new avenues of non-agricultural livelihoods that they have increasingly offered. It is thus possible to conclude that the natural growth of the population has been most restricted in areas where economic pressure as well as pressure on the soil (or agricultural over-crowding) is greatest. Reduction of pressure through the check of natural growth has therefore been brought about most noticeably in such areas.

309. The reader is to be warned to remember that the proportions in Statement I.108 are not based on the natural population of each district, nor are they strictly comparable one with another for the reason that the sizes of districts greatly vary, and where districts are small a greater proportion of the moves from village to village which take place become moves which involve crossing a district boundary. It is unnecessary to go to the refinement of basing the proportions on the natural populations of districts. They would merely magnify the proportions, although to their true size. Still the contrast between the proportions of resistance to internal immigration or otherwise in Western and Southern Bengal and those in the northern districts is marked, and the obvious may safely be stated that the population is decidedly more fluid in the South and West of the province than in the North and East. The following statement carries this analysis further between well-defined geographical divisions in the State.

STATEMENT I.109

Migration in 1951 between Burdwan Division and districts in Presidency Division (a) south of the Ganges and (b) north of the Ganges

Area from which emigrating	Area to which emigrating					
	Burdwan Division		Presidency Division south of the Ganges		Presidency Division north of the Ganges	
	Males	Females	Males	Females	Males	Females
Burdwan Division . . .	..	..	239,669	144,959	2,104	2,176
Presidency Division south of the Ganges	60,045	94,964	..	..	11,055	7,906
Presidency Division north of the Ganges	3,987	2,632	22,618	7,845	..	..

It is remarkable how the central zone of the State is the hub of migration. There is very little migration between Burdwan Division and the country north of the Ganges, the traffic either way being quite small. It is this zone south of the Ganges and east of the Bhagirathi (Hooghly) river which receives most immigrants from the Burdwan Division and from the tract north of the Ganges. But the give and take is confined mainly between the west and east of the Hooghly, compared to which migration between these two areas and the northern districts is even less than between other states of India. This statement therefore enables us to define the streams of internal migration within the State. The streams carrying the greatest numbers with them sort out into several groups: (i) casual migrations in which the chief item seems to be marriage, (ii) periodic migrations of working populations on leave or business returning home, (iii) semi-permanent and (iv) permanent migrations. The first two can easily be distinguished with confidence, while the last two are surmises.

(i) Casual migrations occur most between the following districts, the predominating cause of migration being marriage and work:

a. Burdwan to Birbhum, Bankura, Hooghly and Nadia among which marriages are reciprocal.

b. Birbhum to Midnapur and Murshidabad. Birbhum seems to send away large numbers of tribal women in marriage to Midnapur, and keeps up reciprocal marriage relations with Murshidabad.

c. Bankura to Midnapur (reciprocal).

d. Midnapur to Burdwan (more one way marriages than reciprocal) and Hooghly (reciprocal).

e. Hooghly to Howrah (reciprocal) 24-Parganas (reciprocal), Calcutta (reciprocal), Nadia and Murshidabad (reciprocal).

f. Howrah to Midnapur (more one way marriages than reciprocal).

g. 24-Parganas to Midnapur (more one way than reciprocal), Howrah (more one way than reciprocal), Calcutta (more one way) and Nadia (reciprocal).

h. Calcutta to Midnapur (more one way), Howrah (more one way) and Nadia (more one way).

i. Nadia to Murshidabad (reciprocal).

j. Murshidabad to Burdwan (more one way).

k. Malda to Murshidabad (more one way) and West Dinajpur (reciprocal).

l. From Cooch Behar to Jalpaiguri and Darjeeling (more one way).

(ii) Periodic migrations of small populations on business or leave or other errand have a small polygonal turnover among all the districts and are not capable of being distinguished separately.

(iii) Semipermanent migrations occur most between the following districts, the reasons being colonisation on land or long term employment in the district of immigration.

a. Burdwan to Howrah, 24-Parganas and Calcutta (reciprocal in each case).

b. Birbhum to Calcutta.

c. Bankura to Calcutta.

d. Midnapur to Howrah, 24-Parganas, Calcutta and Nadia.

e. Hooghly to Calcutta.

f. Howrah to Burdwan, 24-Parganas and Calcutta.

g. 24-Parganas to Burdwan and Calcutta.

h. Calcutta to Burdwan.

i. Nadia to 24-Parganas, Calcutta and Malda.

j. Murshidabad to Howrah, 24-Parganas, Calcutta (more one way in each case) and Hooghly, Malda (reciprocal).

k. West Dinajpur to Malda.
l. Jalpaiguri to 24-Parganas and Calcutta.
m. Darjeeling to Calcutta.

(iv) Permanent migrations have occurred in small numbers between most districts but are most noticeable among the following:

a. Birbhum to Hooghly, Howrah and 24-Parganas.
b. Bankura to Hooghly and Howrah.
c. Howrah to Burdwan.
d. 24-Parganas to Burdwan.
e. Nadia to Howrah.
f. Murshidabad to Midnapur and West Dinajpur.
g. Jalpaiguri to Darjeeling (reciprocal) and Cooch Behar (reciprocal).

310. The bulk of migration from rural parts all over West Bengal thus gravitates towards Hooghly, Howrah, 24-Parganas and Calcutta, and more towards the last three districts. The larger migrations from districts of the Burdwan Division mainly to 24-Parganas and Calcutta and only to a small extent to Murshidabad and Nadia are as follows:

STATEMENT I.110

Details of migration from Burdwan Division to Presidency Division south of the Ganges, 1951

From	To Districts of the Presidency Division south of the Ganges		Remarks
	Males	Females	
Midnapur	82,698	49,167	Almost entirely to 24-Parganas and Calcutta.
Howrah	78,341	31,540	Ditto
Hooghly	33,746	24,980	Do., some marriages to Nadia.
Burdwan	25,762	19,785	Bulk to 24-Parganas and Calcutta but some marriages to Nadia and Murshidabad.
Birbhum	10,501	13,432	On business to Calcutta and marriages to Murshidabad.
Bankura	8,621	6,055	Almost entirely to 24-Parganas and Calcutta.

311. The bulk of migration to the industrial area of the Hooghlyside comes from Midnapur. Its extent and variations are shown in the following statement:

STATEMENT I.111

Balance of migration from Midnapur to districts on the Hooghlyside, 1891 to 1921 and 1951

Balance of migration from Midnapur to (emigration from Midnapur exceeding immigration to it)	1951	1921	1911	1901	1891
1 Burdwan	10,280	6,917	4,675	3,092	200
2 Hooghly	12,511	21,770	17,693	8,013	6,142
3 Howrah	3,198	7,047	8,479	10,424	11,326
4 24-Parganas	77,919	61,621	42,399	24,270	..
5 Calcutta	41,462	23,758	28,172	24,968	26,590
TOTAL .	145,370	121,113	101,418	70,767	44,258

312. W. H. Thompson in his report of 1921 remarked that " Midnapur people have flocked to the mill areas in Hooghly and 24-Parganas in increasing numbers, and seem to have taken the lead of those of any other Bengal district in doing so, a fact which is evidence, if more were needed, of the very heavy pressure of the population, on the soil of the district". But already the movement from Midnapur to—Howrah was less in 1921 than in 1911. In 1951 there was a further falling off in the balance of migration not only from Midnapur to Howrah but this time to Hooghly as well. It should be remembered that Midnapur immigrants flock not only to the industrial areas of these districts but colonies in the rural areas also. Judging from the steeply declining trend in Hooghly and Howrah it may be concluded that under present conditions employment in urban as well as rural areas in these two districts are nearing saturation point. A great deal still pour into the southern rural areas of 24-Parganas. Calcutta still continues to provide employment to increasing numbers.

313. There is a large polygonal turnover of migrants between the five industrial districts of Burdwan, Hooghly, Howrah, 24-Parganas and Calcutta. If this turnover is excluded from this review, the stream of occupational or business migration becomes mainly unidirectional, that is, towards the industrial area. This is shown in the following statement:

STATEMENT I.112

Balance of Migration from other districts of West Bengal to Burdwan, Hooghly, Howrah, 24-Parganas and Calcutta, 1951 (Excess of immigration over emigration +, of emigration over immigration —)

Balance of migration from	To Burdwan	To Hooghly	To Howrah	To 24-Parganas	To Calcutta
Burdwan	..	+7,152	+7,370	+1,796	+17,389
Birbhum	+26,732	+3,079	+5,336	+1,206	+6,903
Bankura	+24,235	+12,160	+3,641	+2,426	+8,306
Nadia	+5,232	—653	—1,684	+3,633	+13,757
Murshidabad	+7,802	+1,524	+1,333	+1,850	+12,841
Malda	+379	+334	+446	+444	+1,436
West Dinajpur	+293	+71	+251	+155	+1,148
Jalpaiguri	+9	—85	+67	+309	+200
Darjeeling	+150	+36	+189	+807	+4,159
Cooch Behar	+31	+34	+285	+545	+1,316

314. The polygonal migration in Burdwan, Hooghly, Howrah, 24-Parganas and Calcutta is illustrated in the following statement.

STATEMENT I.113

Polygonal migration in Burdwan, Hooghly, Howrah, 24-Parganas and Calcutta, 1951

Emigration from	Emigration to				
	Burdwan	Hooghly	Howrah	24-Parganas	Calcutta
Burdwan	..	18,687	13,609	6,306	27,463
Hooghly	11,535	..	39,206	14,654	36,741
Howrah	6,239	26,829	..	49,303	55,622
24-Parganas	4,510	14,753	17,761	..	83,176
Calcutta	10,074	15,230	23,374	76,885	..

315. It should be mentioned that migration between Burdwan and Hooghly and between Hooghly, Howrah, 24-Parganas and Calcutta is largely owing to reciprocal marriages. Migration from Howrah, 24-Parganas and Calcutta to Burdwan seem to be mostly of a permanent nature on account of the evenness of the sexes among emigrants from the three former districts to the latter. This testifies to the growing importance of Asansol as an industrial area. All other migration, in view of the large excess of males or females among migrants, seems to be temporary or semi-permanent on business or service.

316. Migration between the four districts of Howrah, Hooghly, 24-Parganas and Calcutta has been considerably reduced from previous decades by the remarkable growth of suburban daily passenger services in these districts. A detailed discussion of this subject will be found in the Calcutta volume of this Report. It will suffice to give here the totals of traffic around Calcutta. The following statement, prepared by courtesy of the East Indian Railway, shows the position in the year 1949-50 for some of the railway stations. This does not include stations on the B. N. Railway.

STATEMENT I.114

Inward and outward bookings in selected stations around Calcutta, 1949-50

Station	Outward	Inward
Howrah . . .	1,195,851	11,420,313
Lilloah . . .	740,038	821,016
Belur . . .	573,650	548,000
Bally . . .	427,808	397,441
Uttarpara . . .	918,933	900,156
Konnagar . . .	740,504	690,002
Rishra . . .	503,848	525,170
Serampur . . .	1,968,835	2,035,905
Shooraphuli . . .	1,328,391	1,295,313
Baidyabati . . .	327,669	348,416
Bhadreswar . . .	298,606	274,182
Chandernagore . .	914,396	896,620
Chinsurah . . .	835,714	811,612
Bandel . . .	625,165	679,305
Calcutta . . .	10,308,255	12,082,883
Diamond Harbour .	329,278	428,772
Magrahat . . .	266,193	237,829
Baruipur . . .	625,337	682,336
Sonarpur . . .	543,085	508,252
Jadavpur . . .	528,860	643,231
Canning . . .	507,177	502,869
Champahati . .	368,796	319,731
Jaynagar-Majilpur .	371,159	363,185
Majherhat . . .	548,419	588,004
Ballyganj . . .	1,601,919	1,855,623
Nungi . . .	520,800	483,156
Akra . . .	375,720	325,092
Dum Dum . . .	1,633,353	1,643,413
Krishnaganj. . .	698,296	690,917
Belgharia . . .	765,760	732,921
Agarpara . . .	350,221	320,464
Khardah . . .	335,781	335,278
Titagarh . . .	543,449	487,424
Barrackpur . . .	771,184	1,002,018
Ichhapur . . .	802,594	928,269
Shamnagar . . .	827,065	716,284
Kankinara . . .	836,256	750,161
Kanchrapara . .	1,049,970	1,025,208
Ranaghat . . .	1,938,174	2,098,680
Kalighat . . .	359,869	415,639
Barasat . . .	397,655	443,129
Duttapukur . .	330,770	223,487
Habra . . .	367,392	426,831
Bangaon . . .	682,875	813,503
Dakhineswar . .	299,857	207,885
Bally Ghat . . .	305,616	264,966

317. Of migration between Presidency Division north of the Ganges and the rest of West Bengal, Statement I.112 gives a fair idea, but it does not specially define migration between two districts, Murshidabad

and Malda, on either side of the Ganges, which really accounts for the bulk of the migration between the central and northern zones of Statement I.112. The following Statement I.115 brings out the state of migration between Murshidabad and Malda in 1951.

STATEMENT I.115

Balance of migration from Murshidabad to Malda, 1891-1921 and 1951
(Excess of immigration over emigration +, of emigration over immigration —)

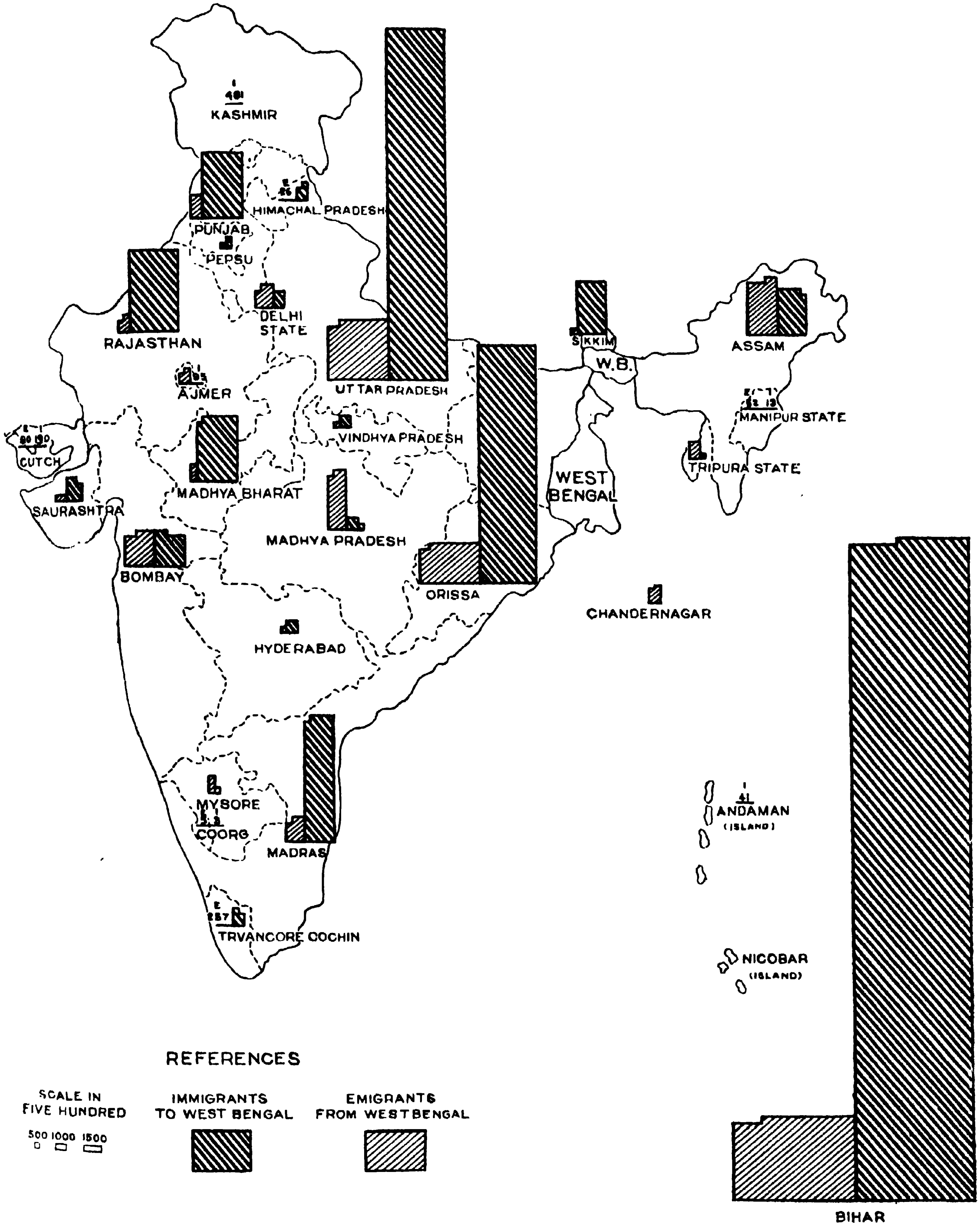
Balance of Migration from	1951	1921	1911	1901	1891
Murshidabad to Malda	+7,597	—23,227	—20,232	—7,162	—9,318

318. It is remarkable that after the partition the stream of migration should have been reversed in respect of the West Bengal portion of Malda. Migration between the two districts being mostly confined to Shershabadia Muslim cultivators, the statement for 1951 leaves out of account those emigrants from Murshidabad who may have gone to the East Bengal portion of the former Malda district. It is possible that the reverse migration in 1951 is a freak. The troubled Indo-Pakistan situation is certainly largely responsible. The reason, however, which led to migrations from Nadia and Murshidabad to Malda still remains: it is the economic pressure on the soil south of the Ganges whose capacities for production have seriously depreciated with the decay of the distributary rivers leaving the Ganges to join the Hooghly estuary, and the resultant lowering of the subsoil water level in Murshidabad and Nadia. But it is also possible that because the alluvial soils of Malda have attained great densities (the densities in Kaliachak, Ratua and Manikchak are 1,092, 754 and 635 persons per square mile respectively) the pressure on the soil in those regions is approaching the maximum and showing signs of resistance to more immigrants.

B. Migration between the State and other parts of India

319. The preceding subsection shows how interdistrict migration is trending towards greater immobility and, further, how, if marriages and temporary migrations of agricultural labourers were excluded, what migration would still be left gravitates only towards the industrial districts of Burdwan, Hooghly, Howrah, 24-Parganas and Calcutta. The reasons are not far to seek and have been detailed in the opening paragraphs of the section on the growth and movement of population. As extension of cultivation reaches its limit, and density on cultivable land attains higher ceilings, as tenancies stretch to innumerable subtenancies, and even sharecropping cannot entertain further intrusions, and as agricultural overcrowding drives more tenants and sharecroppers into the fold of landless agricultural labour, and each district creates a growing reserve of such labour so that it does not have to import it at ploughing and harvest time, migration between contiguous and remote districts must grow less and restrict itself only to social causes, because the economic causes tend to disappear so far as the agricultural sector is concerned. The non-agricultural sector, however, remains, but the overwhelming convergence of immigration streams from all districts to Burdwan, Hooghly, Howrah, 24-Parganas and Calcutta, and signs of thinning of these streams into Hooghly and Howrah show that these basins are also filling up rapidly. Polygonal migration within these five districts also suggests a valid conclusion that, apart from marriages, already the industrial labourer has started milling round the five districts in search of employment. Only Burdwan still seems capable of absorbing industrial labour: one sign being that there are more emigrants

MIGRATION BETWEEN WEST BENGAL AND OTHER PARTS OF INDIA, 1951



from Midnapur in 1951 to Burdwan than to Hooghly and Howrah. Non-agricultural livelihoods in the remaining districts are limited both in variety and capacity of absorption, and in these fields as well as in agriculture, interdistrict migration meets with very serious rivals in Displaced persons and migrants from other states of India. As a result interdistrict migration is compelled to draw in its horns more and more and spend its energy in consolidating its position in its district of origin.

STATEMENT I.116

Migration between West Bengal and other states of India and immigration from Pakistan, 1951

State and District	Population	Immigrants from other states of India	Emigrants from districts of West Bengal to other states of India (estimated)	Net Migration (immigration + emigration −)	Displaced persons from Pakistan
	(thousands)	(thousands)	(thousands)	(thousands)	(thousands)
West Bengal	**24,810**	**1,881**	**311**	**+1,570**	**2,099**
Burdwan	2,192	235	31	+204	96
Birbhum	1,067	33	17	+16	12
Bankura	1,319	20	59	—39	9
Midnapur	3,359	87	62	+25	34
Hooghly	1,554	109	21	+88	51
Howrah	1,611	106	6	+100	61
24-Parganas	4,609	350	14	+336	527
Calcutta	2,549	677	45	+632	433
Nadia	1,145	22	6	+16	427
Murshidabad	1,716	14	19	—5	59
Malda	938	18	11	+7	60
West Dinajpur	721	24	4	+20	115
Jalpaiguri	914	122	5	+117	99
Darjeeling	445	41	7	+34	16
Cooch Behar	671	23	4	+19	100

320. The above Statement I.116 shows migration between West Bengal and other states of India and immigration of Displaced persons in 1951.

321. It will be easier to appreciate the implications of the above statement if the actuals are expressed in terms of percentages and the following statement compares the percentages of interdistrict migration, of Displaced persons from Pakistan, and of migration between West Bengal and other states of India.

STATEMENT I.117

Percentage of migration between West Bengal and other states of India and immigration of Displaced persons, 1951

State and District	Density per square mile of actual population	Percentage of District migration (immigration+, emigration —) to actual population of district	Percentage of Displaced population from Pakistan to actual population of district	Percentage of migration between West Bengal and other states of India (immigration +, emigration —) to actual population of district
West Bengal	799	..	+8·5	+6·3
Burdwan	810	+1·9	+4·4	+9·3
Birbhum	612	—10·0	+1·1	+1·5
Bankura	498	—3·3	+0·7	—3·0
Midnapur	639	—2·6	+1·0	+0·7
Hooghly	1,286	+0·2	+3·3	+5·7
Howrah	2,877	—1·9	+3·8	+6·2
24-Parganas	817	+2·6	+11·4	+7·3
Calcutta	78,858	+6·6	+17·0	+24·8
Nadia	759	—2·0	+37·3	+1·4
Murshidadad	828	—1·3	+3·4	—0·3
Malda	674	—1·7	+6·4	+0·8
West Dinajpur	520	+0·4	+16·0	+2·8
Jalpaiguri	385	+1·8	+10·8	+12·8
Darjeeling	371	—1·3	+3·5	+7·6
Cooch Behar	507	—1·8	+14·9	+2·9

322. This statement shows how all districts in spite of their exhibiting considerable resistance to interdistrict migration support (except Bankura and Murshidabad) large proportions of immigrants from other states of India and, in addition, carry the load of large Displaced populations from Pakistan. It is significant how the percentages of net migrants from other states of India correspond in the majority of the districts (except Nadia, Malda, West Dinajpur, Jalpaiguri and Cooch Behar) to the percentages of the Displaced population from Pakistan.

323. Statement I.118 shows the progress of migration from outside the State into West Bengal districts between 1881 and 1951. It is instructive how with the exception of districts like Birbhum, Murshidabad, Malda, West Dinajpur, Jalpaiguri, Darjeeling and Cooch Behar, in all other districts migration from other states has increased in proportion from decade to decade between 1891 and 1941. In 1951 only Hooghly, Howrah, 24-Parganas, Murshidabad, Malda and Darjeeling show a proportionate decline from 1941 although the absolute figures of immigration for even these districts as well as the proportionate and absolute figures of the remaining districts show increases.

STATEMENT I.118

Percentage of all immigrants from outside West Bengal to its total population in each decade, 1881—1951

The percentage for 1951 includes persons who were born in Pakistan both Displaced and those who did not declare themselves as Displaced persons, their number being 519,867. The percentage of Displaced persons to total population is shown separately under 1951 while percentages of male and female immigrants to male and female populations respectively for each year is shown for West Bengal, as a whole.

State and District	1951								
	Total	Displaced persons	1941	1931	1921	1911	1901	1891	1881
West Bengal	**18·5**	**8·5**	**9·5**	**8·4**	**8·9**	**8·5**	**6·6**	**4·7**	**2·2**
Burdwan	15·8	4·4	9·7	7·4	6·6	5·4	5·1	1·6	0·5
Birbhum	4·5	1·1	3·0	3·2	3·3	3·7	3·6	0·7	0·1
Bankura	2·3	0·7	1·6	1·3	1·2	1·2	1·0	0·3	0·1
Midnapur	3·7	1·0	2·4	2·3	1·8	1·7	0·9	0·4	0·1
Hooghly	11·7	3·3	9·7	9·9	8·4	6·3	4·2	1·5	0·5
Howrah	12·5	3·8	13·8	12·5	13·0	11·6	10·2	6·4	2·4
24 Parganas	21·2	11·4	10·3	9·3	11·2	10·0	6·3	4·7	1·2
Calcutta	54·5	17·0	32·7	33·2	36·0	39·8	35·3	33·7	21·6
Nadia	40·6	37·3	1·3	0·8	1·0	1·1	0·7	6·6	0·2
Murshidabad	4·6	3·4	1·5	1·6	1·8	2·2	2·1	1·9	0·7
Malda	8·8	6·4	2·7	4·2	6·4	7·9	2·8	3·4	1·2
West Dinajpur	21·3	16·0	4·4	4·4	6·6	8·5	6·3	3·6	0·8
Jalpaiguri	30·5	10·8	18·5	21·5	23·5	23·0	17·6	10·2	7·6
Darjeeling	22·5	3·5	25·4	31·5	36·0	41·9	45·6	53·6	38·3
Cooch Behar	21·7	14·9	2·9	2·5	3·8	4·2	3·3	2·5	1·0
Percentage of immigrant males to total males of West Bengal	21·1	8·4	13·1	11·2	11·8	11·4	8·9	6·5	3·0
Percentage of immigrant females to total females of West Bengal	15·5	8·6	5·3	5·2	5·7	5·4	4·2	2·8	1·3

324. This statement also shows the proportion of males and females among immigrants in successive decades which testifies to the unsteady and impermanent character of immigration. It is quite valid to assume on the strength of these percentages that the bulk of immigrants do not settle here for good but earn their livelihoods in West Bengal and maintain their families in their states of origin.

325. Further analysis of the sex ratio will confirm this presumption and Statement I.119 compares the sex ratios of the actual population of West Bengal, immigrants from adjacent states, from states other than adjacent states, and emigrants from West Bengal to adjacent and other states.

STATEMENT I.119

Females per 1,000 males in rural and urban areas of West Bengal, 1951

Description	Females per 1,000 males		
	Total	Rural	Urba
Actual population of West Bengal	859	937	657
Immigrant population from adjacent states	426	642	335
Immigrant population from states other than adjacent states . .	452	537	439
Emigrant population from West Bengal to adjacent states . . .	1,056	Not available	
Emigrant population from West Bengal to states other than adjacent states	771	Ditto	
Natural population of West Bengal	920	Ditto	

326. The above statement illustrates how unstable and impermanent immigration from other states to West Bengal is. Few are permanent settlers in this State and by the look of things West Bengal is regarded primarily as a place of business and earning, the proceeds of which are sent away or taken back home for utilisation there. So the money earned in West Bengal by immigrants is largely spent in their home provinces. This applies more to immigrants from the adjacent states of Assam, Bihar and Orissa than from other remote states. There is good reason, too, because it is easier for immigrants from adjacent states to repair to their homes oftener and at regular intervals than for those whose homes are further away. A larger proportion of the latter therefore bring their families with them. But neither of the categories has a large enough female ratio to justify the conclusion that an appreciable proportion of it is permanently or semipermanently settled in this State and puts back into circulation the money it earns in West Bengal to increase the State's wealth. Immigration from other states of India has therefore much of the character of a sponge which soaks earnings in West Bengal for use elsewhere. At the same time, of course, it makes the inestimable contribution of keeping the wheels of industry turning within the State and not elsewhere, of keeping the bulk of India's commerce and industry of the eastern sector in this State, and of growing and harvesting at least a fraction of the State's agricultural wealth. Nevertheless it makes the State's unequal sex ratio even more glaringly unequal, and as such introduces an element of unhealthiness in the social fabric. This is particularly true in respect of urban areas where immigrants from other states are concentrated far more than in rural tracts. The great predominance of males involves a great increase in sexual immorality, and its presence in turn tends to discourage men from bringing their wives to the towns with them. The great change in this respect which has come over the average industrial or commercial town since 1872 is a matter of serious import, not only when the welfare of the labouring classes is concerned, but from the point of view of the employer. The male labourers being nearly all married, each with a wife of his own somewhere, this disparity means that most of the workers are leading an unnatural existence, missing the comforts of home life, exposed to the greatest temptation towards intemperance, and ambitions, so far as they have any ambitions, only to earn enough to take them home. It is not surprising that their employers find they have little heart in their work, and that they are notoriously unsteady. By contrast emigrants from West

Bengal to adjacent states export along with themselves a larger proportion of females than males, and to other states beyond adjacent ones as big a proportion as 771 females to 1,000 males. This means that the greater proportion of emigrants from West Bengal migrate with their families and settle down permanently in other states thus identifying themselves with the fortunes of the state of their adoption.

327. Unfortunately migration is not tabulated either by mother tongue or family units and there is no way of ascertaining how many of the emigrants from West Bengal belong to West Bengal and speak the Bengali language, and how many of them are 'fortuitous', that is, born to parents from other states when they were sojourning on business in this State. Only a rough tally, therefore, is possible by comparing the number of emigrants from West Bengal to a particular state with the number of persons speaking Bengali as their mother tongue in that state as in Statement I.120 below. The two sets of figures suggest that there must be persons more from East than West Bengal permanently settled in those states.

STATEMENT I.120

Migrants between West Bengal and other states and population in other states speaking Bengali as their mother tongue, 1951

State	Immigrants into West Bengal (thousands)	Emigrants from West Bengal (thousands)	Population speaking Bengali as mother tongue (thousands)
Bihar	1,109	137·4	1,759·7
Uttar Pradesh	295	49	73
Orissa	202	34	86
Rajasthan	56	2·1	2·8
Madras	52	3·7	3·4
Punjab	38·4	·4	N.A.
Madhya Bharat	38	1·6	1·5
Bombay	13·7	14	15·6
Saurashtra	5·5	·9	·5
Delhi	3	6	N.A.
Travancore-Cochin	2·3	·25	N.A.
Vindya Pradesh	2	·5	·7
Hyderabad	2	1	·8
Madhya Pradesh	2·4	19·5	23·8
Pepsu	1	·6	N.A.
Tripura	·6	3	N.A.
Mysore	·5	1·5	2·4
Assam	19·6	23·5	1,719
Ajmer	..	·3	·6

N.A. : Not Available.

Note by Census Superintendent, Assam: "The language entires relating to Assamese and Bengali were vitiated owing to propaganda by different parties. The Bengali section of Goalpara carried a new name 'Goalparia'. It has not yet been decided how it should be classified."

328. Bihar by far and away tops the list in sending immigrants to West Bengal followed very very far behind by Uttar Pradesh. Next is Orissa. Immigrants from Bihar are to be found all over the State in agricultural as well as non-agricultural occupations but immigrants from Uttar Pradesh are to be found mainly in the industrial zone comprising Burdwan, Hooghly, Howrah, 24-Parganas and Calcutta. Immigrants from Rajasthan concentrate mainly in the industrial and plantation zones but are also to be found in other districts wherever there is indigenous banking, pawning, mortgage and trade; immigrants from Madras are concentrated mainly in the industrial zone, Khargpur and Jalpaiguri. Immigrants from the Punjab are mainly to be found in the industrial zone but also wherever there is a sizeable road transport service or a railway colony. Madhya Bharat and Madhya Pradesh send immigrants mainly to the industrial zone and Jalpaiguri. Immigrants from Bombay, Saurashtra, Travancore-Cochin, Delhi and Hyderabad are found mainly in Calcutta and Howrah. Vindya Pradesh sends its immigrants mostly to the agricultural and plantation districts.

329. It will be interesting to find out immigration from other states of India to rural areas of West Bengal and Statement I.121 shows this information classified by sex for each district.

STATEMENT I.121

Immigration in rural areas of West Bengal from other states of India classified by sex (thousands), 1951

State and District	Rural population of West Bengal		Immigrants into rural areas from adjacent states		Immigrants into rural areas from states other than adjacent states		Immigrants into rural areas from states of India		Percentage of rural immigrants from states of India to rural population of West Bengal	
	M	F	M	F	M	F	M	F	M	F
West Bengal	**9,631**	**9,026**	**284**	**182**	**47**	**25**	**331**	**207**	**3·4**	**2·3**
Burdwan	978·5	889	81·5	47	7	4	88·5	51	9·0	5·7
Birbhum	503	495	14	15	1	1	15	16	2·9	3·4
Bankura	617	607	7	10	·5	..	7·5	10	1·1	1·7
Midnapur	1,584	1,522	15	14	5	4	20	18	1·3	1·2
Hooghly	618·5	591	17·5	8	2·5	1	20	9	3·2	1·6
Howrah	566	523	13	8	5·5	3	18·5	11	3·3	2·1
24-Parganas	1,685	1,558	22	8	9	3	31	11	1·8	0·7
Calcutta	..	..	..	..	..	..	..	..	..	..
Nadia	483	454	8	3·5	2	1	10	4·5	2·1	0·9
Murshidabad	709	782	4	3·5	·5	..	4·5	3·5	0·6	0·5
Malda	458	445	7	8	·5	..	7·5	8	1·7	1·8
West Dinajpur	360	318	13	6	1	..	14	6	4·0	2·1
Jalpaiguri	462	387	55	39	10	7	65	46	14·0	11·8
Darjeeling	184	167	12	11	2	1	14	12	7·5	7·0
Cooch Behar	333	288	15	1	·5	..	15·5	1	4·8	0·4

330. Statement I.122 correspondingly shows immigration classified by sex from other states of India to urban areas of West Bengal in 1951.

STATEMENT I.122

Immigration in urban areas of West Bengal from other states of India classified by sex (thousands), 1951

State and District	Urban population of West Bengal		Immigrants into Urban areas from adjacent States		Immigrants into urban areas from States of India other than adjacent States		Immigrants into urban areas from States of India		Percentage of urban immigrants from States of India to urban population of west Bengal	
	M	F	M	F	M	F	M	F	M	F
West Bengal	**3,714**	**2,439**	**674**	**226**	**308**	**135**	**982**	**361**	**26·4**	**14·8**
Burdwan	182·5	142	44	32	11	8	55	40	30·1	28·5
Birbhum	37	32	1	1	..	..	1	1	2·6	2·8
Bankura	49	46	1	1	·5	·5	1·5	1·5	2·4	3·4
Midnapur	134	119	14	9	15	11	29	20	21·4	16·9
Hooghly	205·5	139	38·5	32	4·5	5	43	37	21·0	26·4
Howrah	324	198	39	13	18	7	57	20	17·5	9·9
24-Parganas	814·5	552	149	54	70	35	219	89	26·8	16·2
Calcutta	1,623	925	357	78	180	66	537	139	33·1	15·1
Nadia	108	100	5	1	1	·5	6	1·5	6·0	1·7
Murshidabad	70	65	3	2	·5		3·5	2	5·2	3·2
Malda	19	16	1·5	·5	·5	..	2	·5	9·6	2·8
West Dinajpur	24	18	2	1	·5		2·5	1	9·4	5·8
Jalpaiguri	39·5	27	9	1·5	1	·5	10	2	26·2	6·5
Darjeeling	55	39	7	3·5	4	1	11	4·5	20·7	10·2
Cooch Behar	29	21	3	1·5	1·5	·5	4·5	2	16·2	8·6

331. The above statements are summarised for West Bengal as a whole in Statement I.123 by showing immigration from other states of India into the rural and urban areas of West Bengal as percentages classified by sex, of total, rural and urban populations of this State.

STATEMENT I.123

Immigration from other states of India into West Bengal, classified by sex expressed as percentages of total, rural and urban populations of the State, 1951

	Percentage of Total immigration from other states of India to actual population of West Bengal			Percentage of immigration from states adjacent to West Bengal to actual population of West Bengal			Percentage of immigration from states other than those adjacent to West Bengal to actual population of West Bengal		
	T	M	F	T	M	F	T	M	F
Total	7·6	9·8	5·0	5·5	7·2	3·6	2·1	2·6	1·4
Rural	2·9	3·4	2·3	2·5	2·9	2·0	0·4	0·5	0·3
Urban	21·8	26·4	14·8	14·6	18·1	9·3	7·2	8·3	5·5

332. This statement shows at once where immigrants concentrate in this State, and whether they immigrate to produce more agricultural wealth, that is, more food or cash crops, or to engage in industry. It shows that they come in more for working in non-agricultural vocations than agricultural ones.

333. The statement permits of another conclusion. The bulk of the immigrants, coming into urban areas, enjoy quite a big share—more than a fifth of West Bengal as a whole—of the State's cream of amenities by way of municipal service, good roads, good houses, water, electricity, public health services,

education, hospitals, sewage and many other blessings peculiar to town life in India. Thus the standard of living of immigrants is proportionably better than those of the natural population of the State. About 25 per cent. of West Bengal's population live in towns. If, however, from this urban population, immigrants living in towns were excluded the proportion would decline to 21·0. By contrast, 71·4 per cent. of the immigrant population live in cities and towns while only 28·6 per cent. live in rural areas. 74·8 per cent. of male and 63·5 per cent. of female immigrants live in cities and towns.

334. Clearly with such disparities of immigration into rural and urban areas of West Bengal it may be anticipated that immigration has a tendency to cluster in certain zones possessing a pronounced non-agricultural character. In order to find out the areas of clustering West Bengal has been classified into four zones:

I. The Industrial zone comprising Burdwan, Hooghly, Howrah, 24-Parganas and Calcutta.

II. The Western Agricultural zone comprising Birbhum, Bankura and Midnapur.

III. The Central and Northern Agricultural zone comprising Nadia, Murshidabad, Malda, West Dinajpur and Cooch Behar.

IV. The Plantation zone comprising Jalpaiguri and Darjeeling.

335. Statement I.124 shows migration between these zones of West Bengal and other states of India in 1951.

STATEMENT I.124

Migration between zones of West Bengal and other states of India, 1951

Zone		Actual Population	Immigration from states adjacent to West Bengal	Immigration from states other than adjacent states	Emigration from West Bengal	Percentage of net migration to actual population (immigration+, emigration —)
I. Industrial Zone . . .	T	12,515,346	1,036,931	439,249	116,957	+10·9
	R	7,409,509	205,259	34,739		
	U	5,105,837	831,672	404,510		
II. Western Agricultural Zone .	T	5,745,170	100,375	39,154	138,284	+0·0
	R	5,328,679	73,996	12,105		
	U	416,491	26,379	27,049		
III. Central and Northern Agricultural Zone	T	5,189,994	90,482	12,185	43,619	+1·1
	R	4,719,685	70,023	6,637		
	U	470,309	20,459	5,548		
IV. Plantation Zone . . .	T	1,359,798	137,461	25,483	12,256	+11·1
	R	1,199,172	116,535	18,916		
	U	160,626	20,926	6,567		

336. This brings out more clearly than ever the enormous concentration of the net migrant population in West Bengal in the industrial and plantation zones of the State in striking preference to the agricultural zones. The balance of migration in the industrial and plantation zones constitutes as much as 10·9 per cent. of the State's total population in those zones while the balance of migration into the two agricultural zones comprises as little as 0·6 per cent. of the State's total population. Then again even in the industrial zone immigration from other states of India into urban areas constitutes as much as 24 per cent. of the State's total urban population in that zone, which is a quarter of their total population. In the plantation zone, where there

are only six towns in all, the corresponding urban percentage is 17, while even in the two agricultural zones immigration from other states of India into their urban areas is as high as 9·0 of the total urban population in those zones. The enormous concentration of the immigrant population first in the industrial and plantation zones to the neglect of the agricultural zones, and secondly in the urban areas of all these zones to the comparative neglect of their rural areas is thus remarkable.

337. This, therefore, calls for further elucidation by way of classification of livelihoods of immigrants in these zones to bring out in clear relief the extent of their concentration in agricultural and non-agricultural livelihoods, and the statement that follows classifies the actual and immigrant populations under the eight main livelihood classes among the four zones.

STATEMENT I.125

Distribution of immigrants from other states of India in the eight main livelihood classes in four zones of West Bengal, 1951

Livelihood class and nature of population	Industrial zone (thousands)	Western Agricultural zone (thousands)	Central and Northern Agricultural zone (thousands)	Plantation zone (thousands)	West Bengal (thousand
Total—					
Actual population	12,515	5,745	5,190	1,360	24,810
Immigrant population	1,476	139	103	163	1,881
All agricultural classes—					
Actual population	5,274	4,693	3,640	588	14,195
Immigrant population	84	54	40	19	197
Livelihood Class I—					
Actual population	2,728	2,853	2,157	285	8,023
Immigrant population	31	30	11	5	77
Livelihood Class II—					
Actual population	1,078	816	808	279	2,981
Immigrant population	19	8	9	11	47
Livelihood Class III—					
Actual population	1,386	989	648	19	3,042
Immigrant population	31	15·5	19	2	68
Livelihood Class IV—					
Actual population	82	35	27	5	149
Immigrant population	3	·5	·5	1	5
All Non-agricultural classes—					
Actual population	7,241	1,052	1,550	772	10,615
Immigrant population	1,392	85	63	144	1,684
Livelihood Class V—					
Actual population	2,518	369	413	511	3,811
Immigrant population	555	27	20	94	696
Livelihood Class VI—					
Actual population	1,713·5	182	337	78·5	2,311
Immigrant population	294·5	11·5	11	15	332
Livelihood Class VII—					
Actual population	601	78	45	32	756
Immigrant population	193	20	7	7	227
Livelihood Class VIII—					
Actual population	2,408·5	423	755	150·5	3,737
Immigrant population	349·5	26·5	25	28	429

338. It will be easier to appreciate the above statement in terms of percentages and Statement I.126 shows the percentage the immigrant population bears to the total population under each livelihood class in each of the four zones of West Bengal.

STATEMENT I.126

Distribution of immigrants from other states of India in the eight main livelihood classes expressed as percentages of total population under each class in four zones of West Bengal, 1951

Livelihood Class	Industrial zone	We agricultural zone	Northern agricultural zone	Plantation zone	West Bengal
All Agricultural Classes	1·6	1·2	1·1	3·2	1·4
Livelihood Class I	1·1	1·1	0·5	1·8	1·0
„ „ II . .	1·8	1·0	1·1	3·9	1·6
„ „ III	2·2	1·6	2·9	10·5	2·2
„ „ IV	3·7	1·4	1·9	20·0	3·2
All Non-Agricultural Classes . . .	19·2	8·1	4·1	18·7	15·9
Livelihood Class V	22·0	7·3	4·8	18·4	18·3
„ „ VI	17·2	6·3	3·3	19·1	14·4
„ „ VII	32·1	25·6	15·6	21·9	30·1
„ „ VIII	14·5	6·3	3·3	18·6	11·5

339. This tells an interesting story but before it is told in outline the following Statement I.127 will elucidate the shares of (*a*) States adjacent to West Bengal and (*b*) remote from the latter, in the livelihood pattern.

STATEMENT I.127

Livelihood pattern of general population and immigrants from other states of India, 1951 (thousands)

	Population of West Bengal	Immigrants from states in India	Immigrants from states adjacent to West Bengal	Immigrants from states other than adjacent states	Percentage of immigrants from states of India to population of West Bengal		
					T	M	F
Total	24,810	1,881	1,365	516	7·5	9·8	4·9
All Agricultural Classes . .	14,195	197	183	14	1·4	1·5	1·2
Livelihood Class I . .	8,023	77	72	5	1·0	0·9	1·0
„ „ II . .	2,981	47	43	4	1·6	1·8	1·4
„ „ III . .	3,042	68	65	3	2·2	2·7	1·7
„ „ IV . .	149	5	3	2	3·2	3·8	2·6
All Non-Agricultural Classes .	10,615	1,684	1,182	502	15·9	19·8	10·6
Livelihood Class V . .	3,811	696	511	185	18·3	21·6	13·9
„ „ VI . .	2,311	332	204	128	14·4	18·4	8·9
„ „ VII . .	756	227	154	73	30·1	36·8	18·4
„ „ VIII .	3,737	429	313	116	11·5	14·9	7·2
Percentage of population aged 15-54 to total of its category—							
T	57·4	79 (estimated)	..	..	..	..	..
R	55·7	75 (estimated)	..	..	..	..	..
U	63·5	85 (estimated)	..	..	..	..	..

340. Livelihoods of immigrants were not tabulated in previous censuses and a valuable source of comparison is thus lost. Before entering into a brief discussion, however, of Statements I.126 and I.127 it is profitable to make a comparison of migration in the districts of West Bengal for 1951 and 1921. Data of migration for intermediate censuses are not available and, so far as the districts affected by the partition of 1947 are concerned, the figures of 1921 are estimates. The following statement shows migration between West Bengal and other states of India in 1951 and 1921.

STATEMENT I.128

Migration between West Bengal and other states of India, 1951 and 1921 (thousands)

State and District	Population		Immigration from other states of India		Emigration to other states of India		Percentage of net migration to population of district	
	1951	1921	1951	1921	1951	1921	1951	1921
West Bengal	**24,810**	**16,401**	**1,881**	**1,334**	**311**	**186**	**+ 6·3**	**+ 7·0**
Burdwan	2,192	1,435	235	94	31	17	+ 9·3	+ 5·4
Birbhum	1,067	852	33	28	17	8	+ 1·5	+ 2·3
Bankura	1,319	1,020	20	12	59	29	— 3·0	— 1·7
Midnapur	3,359	2,667	87	47	62	36	+ 0·7	+ 0·4
Hooghly	1,554	1,080	109	90	21	7	+ 5·7	+ 7·7
Howrah	1,611	997	106	128	6	3	+ 6·2	+12·5
24-Parganas	4,609	2,637	350	291	14	6	+ 7·3	+10·8
Calcutta	2,549	1,032	677	314	45	41	+24·8	+26·5
Nadia	1,145	712	22	7	6	3	+ 1·4	+ 0·6
Murshidabad	1,716	1,224	14	22	19	12	— 0·3	+ 0·8
Malda	938	686	18	44	11	8	+ 0·8	+ 5·2
West Dinajpur	721	490	24	32	4	2	+ 2·8	+ 6·1
Jalpaiguri	914	694	122	163	5	7	+12·8	+22·5
Darjeeling	445	283	41	40	7	6	+ 7·6	+12·0
Cooch Behar	671	592	23	22	4	1	+ 2·9	+ 3·5

341. It will appear that while immigration has greatly increased between 1921 and 1951 in all districts except Howrah, Murshidabad, Malda, West Dinajpur, and Jalpaiguri, emigration has not proportionately increased but has increased only on a scale enough to suggest casual but not semi-permanent or permanent exodus.

342. It is difficult for immigrants to acquire tenancy rights in agricultural lands in West Bengal which explains the paucity of distribution in Livelihood class I. Such as is there belongs mostly to scheduled tribes who have immigrated from the Santal Parganas, Chhota Nagpur and Orissa. In 1921 W. H. Thompson remarked that nowhere in West Bengal was the Bihari or the Oriya permitted to acquire rights in land, neither is he commonly employed as an agricultural labourer. Thompson spent many years in Bengal as a Land Revenue Settlement and Survey Officer and he knew what he was talking about. But his statement does not seem to hold good today because a certain amount of land in Birbhum, Bankura, Western Midnapur, Malda, West Dinajpur, Jalpaiguri and Siliguri subdivision of Darjeeling is held by immigrants in regular tenancies, while the Santal, the Oraon and Munda are found in appreciable numbers in the old alluvium in Birbhum, Bankura, Murshidabad, Malda and West Dinajpur. They are also found in such central districts as Burdwan, Hooghly and Nadia. Rampurhat subdivision of Birbhum is largely populated by scheduled tribes

who have come in at some time or other from the Santal Parganas. Some have also passed into Murshidabad district, and there has been a constant stream of Santals, Mundas, Malpaharis and others crossing the Ganges at Rajmahal and moving into northern Bengal over the last half century. The *Barind,* the undulating outcrop of the old alluvium, offered them unoccupied land on which they could settle and still offers it. The soil is the soil of their own country and their methods of agriculture can be used with advantage. Bankura and the north western police stations of Midnapur are similar to Manbhum and Singhum of Bihar and attract agricultural settlers from the latter districts while the whole of Jhargram subdivision and Dantan, Keshiari, Narayangarh police stations of Midnapur attract agricultural settlers from Mayurbhanj and Balasore of Orissa. Police stations Jamalpur, Raina, Khandaghosh of Burdwan contain more tribal sharecroppers than tenants as is the case with Balagarh, Pandua and Dhaniakhali police stations in Hooghly. Sagardighi, Nabagram and Khargram police stations in Murshidabad together with the *Barind* police stations of Malda and West Dinajpur have large numbers of tribal tenants and sharecroppers, while the alluvial police stations of Farakka, Suti and Samserganj of Murshidabad and Harishchandrapur, Kharba, Ratua and Manikchak police stations of Malda and Raiganj and Hemtabad police stations of West Dinajpur contain a good proportion of non-tribal immigrants from Bihar as ryots and sharecroppers. But the largest proportion of immigrant tribals and non-tribals from Bihar is to be found in Jalpaiguri and Siliguri subdivisions of Darjeeling where the need to people government *Khas Mahal* lands and throw them open to cultivation could not afford to wait for Bengali settlers and inducted large numbers of non-Bengali tenants. Another reason was the need to secure cheap labour which such settlers might render to tea gardens. Darjeeling is peopled almost entirely by immigrant tenants from Nepal and Bhutan. But the fact remains that an overwhelming proportion of tenancies has remained in the hands of natives of the state. A point to be considered, however, in this connexion is that immigrants driven away by overcrowding from their own states would not touch land which did not promise much but would prefer to go into industry which held decidedly better prospects.

343. The distribution of immigrants in the agricultural spaces is therefore very thin and the reason is attributable both to the native and the immigrant, the former of whom is loth to part with tenancy rights, the latter being more attracted towards industry. But the overriding reason is a tremendous agricultural overcrowding as a result of which the soil refuses to entertain intruders. A most unfortunate consequence is that immigrants do not grow more than a moiety of the cash crops that earn money for the State in foreign markets or the food they consume, rendering the State thus more and more dependent on imports.

344. It is no accident that the strength of immigrants in each of the four Zones and in West Bengal as a whole in Livelihood Classes II and III is high and steadily rising. This is a good index of the difficulty and resistance the immigrant meets with in penetrating the sanctum of occupancy rights. It is an uphill task for him. He has to spend a long probation first as an agricultural labourer. If he succeeds in filtering through it he spends another apprenticeship in sharecropping after which, given the time and the opportunity, he breaks through into full-fledged tenancy. That these filters operate with almost equal tenacity in every district where there are immigrants among agriculturists is borne out by the nicely graded steps of rising percentages in Livelihood Classes I, II and III in Statement I.126.

345. But there is an abrupt break in the pattern when it comes to proprietary rights in the land and the rent-receiving class which clips rents but does not cultivate itself. The percentage for West Bengal as a whole is high enough (3·2) compared to percentages in the other three agricultural livelihoods, but it is particularly so in the industrial zone and quite astounding in the Plantation zone. Normally one would have expected the percentage in this class to be the least but the facts are otherwise. The reason is not far to seek. The industrial zone has the largest proportion of moneyed immigrants, moneylenders, bankers, big traders and businessmen who possess the wherewithal to acquire proprietary interests in land and real estate through moneylending, mortgages and direct purchase. Owing to the very high value of all classes of land in the industrial zone land is a valuable source of profit and speculation, and land booms can be intelligently spaced and thoughtfully engineered to yield as much profit as any good industry. The end of the nineteenth century in England was so safe and profitable a time for real estate that a new phrase was coined in English: "safe as houses". A similar phrase 'safe as land' applies particularly to the industrial zone in West Bengal today and the proprietary rights in much valuable land are passing into the hands of immigrants. Land is both safe and endowed with the dignity attaching to the landed gentry. In an earlier section it has been seen how much land even in Bankura has passed into the hands of moneylenders and traders who buy up proprietary rights in agricultural land and let it out again on *Sanja* rent, which is still called rent and not a share of the crop. This has its counterparts in *Khut Khamar* in Hooghly, in *Utbandi* in Nadia, in *Fasli jama* in Murshidabad, and in *Hal-hasila* in Malda, and it is plain that a fraction of the proprietary interests controlling these systems of rent is composed of immigrants. Even as Birbhum and Bankura have a handful of upcountry zamindars, Murshidabad and Malda have more of them. Quite a number of upcountry Rajasthani zamindars of Jiaganj-Azimganj in Murshidabad and Bihari zamindars of old Malda and Purnea own landlord rights in these districts and contribute to the percentages of these zones in Livelihood Class IV.

346. The very high percentage of immigrants among landlords in the Plantation Zone, amounting to a fifth of the total interests, is explained by the preponderance of immigrant Rajasthani landlords in Darjeeling district and immigrant proprietors in large estates in Jalpaiguri. Land is also let out by proprietors or managements of tea estates and most of them being in the hands of immigrants they are returned as such.

347. The sex ratio of immigrants in the different agricultural livelihoods in Statement I.127 fits in beautifully with the stability required of each class on the spot to hold what it has. The sex ratio in Livelihood Class I is accordingly equal, because this class has to remain rooted in its property and therefore brings in its family. The female ratio is only slightly, although definitely, less in Livelihood Class II, and more pronouncedly less in Livelihood Class III. Agricultural labourers come and go between sowing and harvesting time and therefore can keep their families at home in their own states. The ratio is the least in Livelihood Class IV because landlords do not need to live in estates but can very well collect their dues through their agents.

348. Another interesting feature is brought out by the proportion of ages 15-54 among immigrants. This class interval may be regarded as the employable age of our population and while it is only 57·4 per cent. of the total, being 55·7 per cent. in rural areas and 63·5 per cent. in urban ones, the proportion of this age group is as high as

79 among the immigrant population, being 75 per cent. in rural areas and 85 in urban ones. These are conservative estimates based on samples. It is as high as 97 in Barabazar in Calcutta. This means that a far greater proportion among immigrants belongs to the employable age and is therefore capable of earning its living than the actual population of West Bengal.

349. It is in the non-agricultural livelihoods that the immigrant population finds itself more at home, and it is here that it forms about a sixth of the population supported by them. In the industrial and plantation zones this proportion is as much as about a fifth of the total population supported, not a mean proportion, the full import of which is liable to be missed unless other cognate circumstances are considered.

350. The immigrant population has made a very great contribution to the development of industry in this State, and although it is true that industries in West Bengal have been established where they are, not because of the availability of labour but for many other reasons detailed in an earlier section, it is difficult to imagine how the void would be filled were the State to lose its working immigrant population today. This question assumes a more serious aspect when one reflects that more than a fifth, a sixth, and a third respectively of the population employed in V Production other than agriculture, VI Commerce, and VII Transport are immigrants. Such locomotive workshops for example, as in Chittaranjan, Asansol, Burdwan, Bandel, Lillooah, Shalimar, Howrah, Ramrajatala, Khargpur, Sealdah, Kanchrapara, Ranaghat, Rampurhat, Siliguri, Cooch Behar and Alipur Duar have been classed under V Production as they are more of the nature of manufacturing industries than transport. The point that is sought to be made out is that Livelihood Class VII Transport is more akin to Livelihood Class V Production other than agriculture, than to VIII Miscellaneous sources and other services and the large proportion of immigrants among these Livelihood Classes implies that the native population is proportionately more concentrated in VI Commerce and trade, and VIII Miscellaneous sources and other services than at first appears from Statement I.126.

351. The enormous concentration of immigrants from other states of India in the industrial and plantation zones is too obvious even to a casual traveller to be elaborated in this report. The flow of upcountry immigrants who come into West Bengal to find employment as porters or as cobblers, milkmen, carters, boatmen, cooks, policemen, durwans, peons and so on, is still very great and does not show much sign of abating. The mercantile classes (Class VI) who account for most of the immigrants from Rajputana and Bombay are on the increase. The influx from Madhya Pradesh and Madhya Bharat is absorbed in the tea districts and trade elsewhere. There is a clear indication that upcountry mercantile classes are taking a very large share in Calcutta's trade (26 8 per cent. of the population engaged in VI Commerce) and it seems that they are doing the same outside the city also. It is unnecessary to repeat tables from the Tables Volume to show the extent of immigration into the industrial towns on either side of the Hooghly and in Asansol subdivision from districts of Bihar, Uttar Pradesh and Orissa. On account of the absence of information of district of origin in other states it is not possible to furnish their details, but in 1921 W. H. Thompson detailed Patna, Gaya, Sahabad, Monghyr, Saran, Muzaffarpur and Darbhanga in Bihar; Balia, Gazipur, Banaras, Azamgarh and Jaunpur in the Uttar Pradesh and Cuttack and Balasore in Orissa as the centres of migration to West Bengal. Inquiry from other sources in 1951 reveals that these still continue to be the areas of migration to the industrial centres of West

Bengal. This great body of immigrants which accounts for more than two-thirds of the immigrant population in the State comes from two closely circumscribed areas, one consisting of the two districts of Cuttack and Balasore on the Orissa coast (Puri also sends a considerable number) and the other the western districts of Bihar with the adjoining ones just across the border in Uttar Pradesh. The method of recruiting artisans and labourers for the jute mills and indeed for almost every large industry is in the main responsible. A *sirdar*, whose home is in one of these districts brings down to a factory a gang recruited from among the poorer of his co-villagers, maintains some sort of control over them while they are employed and generally looks after them till he takes or sends them home again. This explains how it is that in one factory a large body of the labourers often comes from a very closely circumscribed area, often a few adjoining villages only, in some up-country district. The numbers from the westernmost districts of Bihar are greater than from the districts adjoining them in Uttar Pradesh only because the latter districts are smaller, for they send quite a large proportion of their people to the industrial area in West Bengal. Generally speaking, the recruits from Orissa find less regular employment than those from the north-west. They are more often casual labourers, but enjoy a virtual monopoly of factory, public utility and domestic plumbing and electrical work. More of the Biharis are skilled factory workers, and the proportion that is skilled seems to increase among those who come from further to the north-west. The development of industries in Uttar Pradesh has led to a decline in immigrants from that province and an increase in those from Bihar. It would be no exaggeration to say that the surplus driven away by agricultural overcrowding in Bihar, where, however, the density of population per cultivated square mile is much less than in West Bengal is almost entirely sustained in West Bengal. The number which comes down from the Eastern Bihar districts is much smaller and very few come to industrial centres from Chhota Nagpur. They can be divided into two streams : (*a*) the first from Hazaribagh, Ranchi, Manbhum, Singbhum and southern portion of Santal Parganas which finds employment in the mining and industrial area of Asansol ; (*b*) the second stream from the northern half of Santal Parganas and Purnea which penetrates the agricultural spaces of Birbhum, Murshidabad, Malda, West Dinajpur and Darjeeling. Plantation workers are largely drawn from tribesmen from the middle of the Chhota Nagpur Plateau. Ranchi is the district in which the majority of tea garden labourers are recruited. Next in importance are Singbhum, Palamau, Hazaribag, Lohardaga in Bihar, and Nagpur, Bilaspur and Raipur in Madhya Pradesh. The number of females brought in is almost equal to the number of males, for the tea industry finds employment for females as easily as for males.

352. To return to industrial labour in the industrial zone the tribes of Chhota Nagpur plateau prefer to find work out of doors and shun the towns and, therefore, when they are not working as sharecroppers or agricultural labourers, find employment as underground and surface miners. It is not suggested by any means that all those who come to the industrial zone find employment in organised industry. Many of them ply their traditional caste trades in the industrial area as they do in towns and rural areas in other parts of West Bengal. Cobblers, milkmen, cartmen, porters, earth-workers, boatmen, domestic servants, cooks, constables, durwans, zemindars' peons, most of the menial staff and porters on the railways come from Bihar and Orissa. It goes without saying that immi-

grants from Bihar, Orissa and Uttar Pradesh include a leaven of the mercantile classes, but they do not include any appreciable number employed in the professions or in clerical work. Male and female immigrants from Madras and the South are greatly valued in certain kinds of work in jute mills which are virtually their monopoly, and in certain branches of railway and marine workshops, while they are increasingly filling up managerial, white-collar, accountancy and personal secretaryship posts in large offices. Immigrants from Bombay and other remaining states are mostly in trade and commerce.

Thus the most important streams of immigration from other states of India are:

i. From Western Bihar and Eastern Uttar Pradesh, Orissa, Rajputana, Bombay, Madras, Punjab and states of the South to the industrial and commercial zone of Burdwan, Hooghly, Howrah, 24-Parganas and Calcutta.

ii. From Santal Parganas, Manbhum, Singbhum of Bihar, Mayurbhanj and Balasore of Orissa to the agricultural districts of Birbhum, Bankura, Midnapur and Murshidabad.

iii. From Santal Parganas and Purnea of Bihar to Malda, West Dinajpur, Jalpaiguri and Darjeeling.

iv. From Chhota Nagpur, Assam and Madhya Pradesh to the tea gardens of Jalpaiguri.

353. That this immigration into the industrial and plantation zones is semi-permanent is evident in the proportion of females in Livelihood Class V and Statement I.127. Statement I.126 also shows how much of production other than agriculture is in the hands of immigrants even in the Western, Central and Northern agricultural zones.

354. Trade and commerce are mostly in the hands of immigrants from Rajputana, Bombay, Punjab and Uttar Pradesh and immigrants control a very much larger share than the numerical ratio would signify. Immigrants also own a sizeable share of this livelihood in the two agricultural zones but their proportion in the plantation zones, although quite large, does not quite indicate the virtual monopoly they enjoy not only in the wholesale trade and commerce but in retail and petty trade as well.

355. The greatest percentage of employment is reached in Livelihood Class VII Transport. This is due to the preponderance of immigrant workmen in railways, mercantile marine, and powered road transport as skilled and unskilled workers, fitters, mechanics, stokers, firemen and hundreds of unspecified jobs. Immigrants also enjoy a high proportion in the two agricultural zones as cartmen, boatmen, coachmen, drivers and chauffeurs.

356. In Livelihood Class VIII immigrants are chiefly employed in all kinds of construction and utility services in the industrial zone, in municipal services, in private and public works, in offices as officers, assistants, and menials, in the army, navy, air services and the police. But they are not so numerous in the humane and liberal professions. They have a fifth share of these services in the plantation zone. In the more industrialised and, therefore, more opened up, Western agricultural zone their proportion is double that in the Central and Northern agricultural zones.

357. Statement I.127 tells much that is instructive in this connexion. In Livelihood Class V a great proportion of employed immigrants are women and it is possible that it is for this reason rather than because immigrants of this Class bring their families, that the proportion of females is high, although no more than two-thirds of males. But in the other three non-agricultural livelihoods of Commerce, Transport and Miscellaneous Services, the proportion of women is about half that of males which indicates that immigrants regard this State more as their place of employment and business than as their home.

C. Migration between the State and other parts of the world outside India

358. As in previous censuses this Report gives information only of immigrants in this category and not emigrants.

359. The most numerous immigrants are from Pakistan and Nepal. Immigrants from Pakistan may be divided into two classes : (a) Displaced population from Pakistan and (b) Non-Displaced immigrants from Pakistan. If immigrants from Pakistan and Nepal were excluded, immigrants from elsewhere in the world would dwindle to a few thousands. It may be presumed that except for non-displaced immigrants from Pakistan, Nepal and Sikkim very few immigrants from other parts of the world are engaged in agriculture. The following Statement I.129 classifies immigration from outside India by Pakistan, Nepal and other states in 1951 and 1921.

STATEMENT I.129

Immigration into West Bengal from outside India, 1951 and 1921

State and District	Non-Displaced immigrants from Pakistan 1951	Immigrants from Nepal and Sikkim 1951	Immigrants from other parts of the world			
			1951			1921
			Total	Males	Females	
West Bengal	**519,867**	**95,586**	**26,704**	**16,260**	**10,444**	**108,990**
Burdwan	12,745	1,710	879	571	308	980
Birbhum	3,104	138	49	31	18	60
Bankura	1,232	56	25	7	18	20
Midnapur	2,809	1,075	106	62	44	160
Hooghly	20,881	290	350	206	144	700
Howrah	32,705	1,441	993	795	198	1,300
24-Parganas	93,965	2,604	2,184	1,344	840	3,150
Calcutta	252,444	10,831	15,908	9,532	6,376	13,800
Nadia	14,967	213	92	51	41	60
Murshidabad	5,032	54	63	43	20	60
Malda	3,935	66	16	8	8	70
West Dinajpur	13,270	742	11	7	4	250
Jalpaiguri	33,786	26,863	1,765	1,195	570	25,190
Darjeeling	6,863	40,406	4,217	2,388	1,829	62,440
Cooch Behar	22,129	9,097	46	20	26	750
Chandernagore	**865**	**1**	**95**	**10**	**85**	..
Sikkim	**10**	**3,162**	**501**	**311**	**190**	**21,000**

STATEMENT I.130

Immigrants from beyond India and their nationalities, 1951

Country of birth and number enumerated in West Bengal		Claiming nationality mentioned in column (1)	Claiming nationality other than in column (1)
	1	2	3
Afghanistan	772	371	401
Burma	6,411	658	5,753
Ceylon	203	75	128
China	3,969	8,040	..
Nepal	73,299	14,617	58,682
Pakistan	2,618,938	267,110	2,351,828
Straits Settlements and Malaya	129	114	15
U. S. S. R.	99	69	30
Elsewhere in Asia	5,480	1,362	4,118
United Kingdom and Northern Ireland	6,825	12,579	..
Eire	48	191	..
Elsewhere in Europe	1,356	1,321	35
Kenya	24	..	24
Mauritius	10	1	9
Mozambique	108	4	104
Elsewhere in Africa	5	20	..
Canada	17	26	..
United States	1,071	1,082	..
Elsewhere in America	38	6	32
Australia	110	526	..
New Zealand	15	3	12
Elsewhere in Australia	10	12	..
Born at sea	4	..	..
TOTAL	2,718,941	308,187	2,410,754

360. The statement illustrates how immigrants from outside India, Pakistan, Nepal and Sikkim have not increased in the same proportion as immigrants from these parts. The skill and knowledge that immigrants from outside these countries bring in have well defined scopes in the production of wealth in our country. Most of it is in the directing, managerial or specialised skill spheres and as the progress of industry has been on a lower level than the growth of population, the strength of immigrants required to man the more slowly growing industries will necessarily be small. Data by eight main livelihood classes are not separately available for foreign immigrants but their distribution in the districts indicates that few of them help in growing more food, and the great majority must be engaged in industry, commerce, transport or other services. Statement I.130 shows how many of foreign immigrants claim the nationality of the country of their origin.

361. This brings this section finally to a review of migrants to and from West Bengal in rural and urban areas. From what has been recorded before it is possible to construct a picture of how immigrants are engaged. It has not

been possible to obtain from other states a rural—urban distribution of livelihoods of emigrants from West Bengal; neither has it been possible to obtain an estimate of age distribution in rural and urban areas. One has therefore to judge the character of emigration from West Bengal mainly by the unsatisfactory criterion of excess of one sex over another, which cannot take one very far. From Statement I.120 it appears that many more persons from what is now East Bengal emigrated to other states of India than from West Bengal, and a great majority of them, to judge from the evenness of the sexes, may have migrated semipermanently. For those states to which more females from West Bengal have emigrated than males, two deductions are possible: (a) that boys and girls, soon after they were born to their parents, whilst they were sojourning in West Bengal, were sent back to their home States to be brought up there, and (b) that West Bengal has been exporting brides to other states. Both seem to be true. That many natives of West Bengal have migrated to other states in the non-agricultural livelihoods especially in Bihar, Uttar Pradesh, Madhya Pradesh, Bombay and even Madras is borne out by the preponderance of males over females in those livelihoods. But their proportion is very small compared to immigrants from those states. Statement I.131 shows emigrants from West Bengal to the principal states of migration by livelihood class and sex.

STATEMENT I.131

Emigrants from West Bengal to other states of India classified by livelihood and sex, 1951

Emigrants to	Agricultural classes					Non-agricultural classes				
	I-IV	I	II	III	IV	V-VIII	V	VI	VII	VIII
BIHAR										
Males	27,519	17,285	4,203	5,259	772	40,548	14,779	6,706	6,409	12,654
Females	39,874	26,994	5,274	6,805	801	29,480	9,805	4,825	4,496	10,354
Total	67,393	44,279	9,477	12,064	1,573	70,028	24,584	11,531	10,905	23,008
UTTAR PRADESH										
Males	2,852	1,875	321	324	332	22,064	5,185	4,160	2,564	10,155
Females	4,169	2,952	308	340	569	19,948	4,337	4,431	2,037	9,143
Total	7,021	4,827	629	664	901	42,012	9,522	8,591	4,601	19,298
ORISSA										
Males	7,690	4,908	2,083	499	200	7,169	1,828	1,184	672	3,485
Females	10,982	8,128	1,897	538	419	8,157	1,225	1,628	664	4,640
Total	18,672	13,036	3,980	1,037	619	15,326	3,053	2,812	1,336	8,125
ASSAM										
Males	4,396	2,519	1,605	198	74	7.712	2,446	1,131	1,419	2,716
Females	5,218	3,645	1,400	92	81	6,166	2,124	1,035	1,169	1,838
Total	9,614	6,164	3,005	290	155	13,878	4,570	2,166	2,588	4,554
MADHYA PRADESH										
Males	1,326	676	97	517	36	12,312	3,535	1,079	1,162	6,536
Females	770	613	56	77	24	5,114	1,079	845	899	2,291
Total	2,096	1,289	153	594	60	17,426	4,614	1,924	2,061	8,827
BOMBAY										
Males	134	46	11	25	52	8,684	2,616	1,938	623	3,507
Females	82	27	5	10	40	5,052	1,198	1,458	304	2,092
Total	216	73	16	35	92	13,736	3,814	3,396	927	5,599
MADRAS										
Males	155	66	13	16	60	1,865	246	306	248	1,065
Females	114	57	7	12	38	1,572	194	233	188	957
Total	269	123	20	28	98	3,437	440	539	436	2,022

LIVELIHOOD OF MIGRANTS

362. The only other States which have a population of more than 2,000 migrants from West Bengal are Punjab, Ajmer, Tripura, Rajasthan and Delhi. The proportion of agricultural and non-agricultural classes in them are as follows:

STATEMENT I.132

Agricultural and Non-agricultural emigrants from West Bengal classified for five states of India, 1951

State	Agricultural classes		Non-agricultural classes	
	Males	Females	Males	Females
Punjab	164	839	1,559	1,268
Ajmer	4	2	1,523	1,518
Tripura	130	2,427	227	193
Rajasthan	328	311	987	491
Delhi	2	18	4,398	1,257

363. It is evident that more emigrants from West Bengal are in agricultural livelihoods in other states of India, especially those in Statement I.131 than immigrants into West Bengal. Turning to Statement I.116 it will appear that there are only two districts in West Bengal which export population to other states more than they import. They are Bankura and Murshidabad. In 1921 also W. H. Thompson observed that there was only one Bengal district from which emigrants were as large a proportion as from the Bihar, Uttar Pradesh and Orissa districts and that was Bankura. But Bankura district compares more closely with Manbhum, Singbhum and Chhota-Nagpur in general ecology. Figures from previous censuses cannot be readily extracted to compare the trend of emigration from West Bengal districts to individual states of India to show whether emigration is on the increase or decrease so far as a particular state is concerned.

364. The distribution of the livelihood pattern of the general population by livelihood classes by total, rural and urban categories is published in Subsidiary Tables I.8, II.4 and III.7 in Part IC of this volume. As tabulation of information in the Indian Census, being severely restricted by economy, varies from decade to decade, it is thought fit as a measure of expediency to publish in Statements I.134 and I.135 information in respect of (i) immigrants from other states of India and (ii) the Displaced population. Statement I.133, however, is a digest of these two statements in a more suitable form of comparison for the four zones of West Bengal.

STATEMENT I.133

Livelihood pattern of general population, immigrants from other states of India, and Displaced population from Pakistan, 1951

	Per 10,000 of persons belonging to livelihood class							
	I	II	III	IV	V	VI	VII	VIII
INDUSTRIAL ZONE								
Total								
General Population	2,131	857	1,082	68	2,059	1,378	501	1,924
Immigrant ,,	331	178	358	18	4,487	1,495	1,058	2,075
Displaced ,,	514	156	467	63	2,032	2,336	502	3,930
Rural								
General Population	3,442	1,368	1,756	71	1,451	680	178	1,054
Immigrant ,,	1,193	422	1,264	29	2,991	1,178	696	2,227
Displaced ,,	1,257	307	1,121	68	1,635	1,646	452	3,514

STATEMENT I.133—concld.

	Per 10,000 of persons belonging to livelihood class							
	I	II	III	IV	V	VI	VII	VIII
INDUSTRIAL ZONE—*concld.*								
Urban								
General Population	167	106	114	63	3,494	2,136	898	3,022
Immigrant ,,	46	61	76	15	4,852	1,654	1,139	2,157
Displaced ,,	78	85	85	68	2,250	2,598	586	4,250
WESTERN AGRICULTURAL ZONE								
Total								
General population	4,839	1,294	1,969	61	658	324	109	746
Immigrant ,,	3,053	645	1,345	44	1,415	802	912	1,784
Displaced ,,	304	237	446	45	754	1,013	449	6,752
Rural								
General Population	5,146	1,370	2,071	54	537	216	44	562
Immigrant ,,	3,787	907	1,781	44	959	736	179	1,607
Displaced ,,	455	348	691	33	620	896	254	6,703
Urban								
General Population	835	308	590	146	2,210	1,769	947	3,195
Immigrant ,,	261	175	238	115	3,041	1,485	2,282	2,403
Displaced ,,	44	51	13	68	1,003	1,180	815	6,826
CENTRAL AND NORTHERN AGRICULTURAL ZONE								
Total								
General Population	4,281	1,774	1,146	49	713	605	80	1,352
Immigrant ,,	1,111	832	1,780	60	1,926	1,094	716	2,481
Displaced ,,	1,104	2,291	884	35	1,323	1,249	100	3,014
Rural								
General Population	4,623	1,906	1,247	42	635	394	45	1,108
Immigrant ,,	1,354	1,028	2,449	38	1,724	651	554	2,202
Displaced ,,	1,281	2,728	1,067	25	1,315	866	67	2,651
Urban								
General Population	476	166	97	136	1,521	2,944	424	4,236
Immigrant ,,	141	42	59	92	2,343	2,614	1,252	3,457
Displaced ,,	352	116	88	90	1,553	3,054	236	4,511
PLANTATION ZONE								
Total								
General Population	2,100	1,758	149	32	3,830	604	255	1,272
Immigrant ,,	369	651	118	48	5,097	1,086	485	2,146
Displaced ,,	717	2,073	193	20	1,405	2,306	776	2,510
Rural								
General Population	2,435	1,970	176	28	4,281	279	148	683
Immigrant ,,	504	854	164	60	6,170	311	327	1,610
Displaced ,,	1,070	4,202	364	12	1,248	1,136	561	1,407
Urban								
General Population	167	98	14	56	1,406	2,765	922	4,572
Immigrant ,,	58	22	17	25	1,314	2,990	1,265	4,309
Displaced ,,	54	83	6	37	1,675	3,450	1,043	3,652
WEST BENGAL								
Total								
General Population	3,234	1,201	1,226	60	1,536	932	305	1,506
Immigrant ,,	407	253	362	25	3,609	1,763	1,210	2,281
Displaced ,,	816	976	538	46	1,576	2,024	356	3,668
Rural								
General Population	4,242	1,574	1,599	56	1,099	440	97	893
Immigrant ,,	1,341	819	1,183	35	3,790	737	433	1,662
Displaced ,,	1,543	1,908	1,034	31	1,076	1,081	133	3,194
Urban								
General Population	177	71	95	74	2,865	2,420	934	3,364
Immigrant ,,	33	26	33	22	3,662	2,174	1,521	2,529
Displaced ,,	90	42	42	61	2,076	2,966	580	4,143

365. The statement bears out sharply most of what has already been observed. In the industrial zone the paucity of agricultural livelihoods and the preponderance of immigrants in each of the four non-agricultural livelihoods even in rural areas are highlighted. There is a very marked concentration of immigrants in Livelihood Class V in rural as well as urban areas in the Industrial and Plantation zones. In the two agricultural zones immigrants are less in evidence in the agricultural livelihoods but prominent in the non-agricultural ones. It can only be concluded that immigrants control in a large measure more of the non-agricultural livelihoods even in rural areas than the agricultural ones which are not easy to penetrate. They produce but little on the land but work on industries and services in the rural areas.

366. The picture for Displaced persons is unsatisfactory. There are far too few sharecroppers and agricultural labourers among them in the industrial and Western zones. There is a sizeable population in Livelihood Class I but even there its proportion is lower in the rural areas of the two agricultural zones than among immigrants from states in India. There is quite a number of Displaced tenants in Livelihood Class I, living, strangely enough, in towns, more than what might ordinarily be thought was good for agriculturists newly arrived. A possible explanation is that a great many of them, when they return themselves as tenants, were thinking of their tenancies in East Bengal when the enumerator called. It is also a fact that the Government has tried to provide culturable land within striking distance of towns for those Displaced persons who cannot be persuaded to disperse to the village. The low proportion of agriculturists among the Displaced population in the Western agricultural zone is evidence of the low capacity of the soil of marginal land in that zone, while its comparatively high proportion in the Industrial zone indicates that the Displaced population cannot trust itself entirely to a living out of the land but must have subsidiary non-agricultural occupations as second strings. The higher proportions of Displaced agriculturists in the Central and Northern agricultural zone and the plantation districts, especially among sharecroppers and agricultural labourers is a good sign of the industry of the Displaced population in those areas. But there is decidedly far too much of Livelihood Class VI—Commerce—petty trade and shopkeeping—in every zone and in every area, rural as well as urban, than can be good for a population which has not found its roots in the soil of its adoption yet, and whom the hazards of the wholesale and retail market might send spinning any day. But even more disconcerting is the concentration of the Displaced population in every zone and in every area, rural as well as urban, in Livelihood Class VIII (Miscellaneous sources and other services), which can only mean that this population is not conspicuous for the service it renders in the production of food or in turning the wheels of industry in the State, but in earning livings from occupations which do not add to the wealth of the country, nor assist directly in its capital formation. Insofar as it is engaged in that kind of livelihood it is unproductive and capital consuming. Besides, Livelihood Class VIII includes approximately 18,000 Displaced families who were on the Government dole at the time of the Census of 1951.

367. An estimate of the natural population of West Bengal remains to be made and of the rate of growth of this population between 1881 and 1951. But since this involves correction of the census figures of 1941 which are clearly unacceptable as they are and since an estimate of the actual population of West Bengal in 1941 will be made in the next section, that of the State's natural population and its rate of growth will be found in the section on concluding remarks.

LIVELIHOOD OF IMMIGRANTS

STATEMENT I.134

Livelihood pattern of immigrants from other states of India per 10,000 immigrant population (T. R. U.) belonging to all livelihood classes, 1951

State and District		Per 10,000 of immigrant population belonging to livelihood class							
		I	II	III	IV	V	VI	VII	VIII
West Bengal	**T**	**407**	**253**	**362**	**25**	**3,699**	**1,763**	**1,210**	**2,281**
	R	**1,341**	**819**	**1,183**	**35**	**3,790**	**737**	**433**	**1,662**
	U	**33**	**26**	**33**	**22**	**3,662**	**2,174**	**1,521**	**2,529**
Burdwan Division									
Burdwan	T	702	675	729	21	4,682	878	706	1,607
	R	1,091	974	1,073	19	4,957	430	482	974
	U	134	236	224	25	4,280	1,534	1,034	2,533
Birbhum	T	3,216	727	1,575	39	970	592	279	2,602
	R	3,399	749	1,663	30	795	534	208	2,622
	U	171	363	107	192	3,874	1,542	1,467	2,284
Bankura	T	4,851	667	1,620	55	690	884	342	891
	R	5,529	748	1,784	43	502	705	112	577
	U	563	152	585	133	1,881	2,014	1,792	2,880
Midnapur	T	1,091	541	841	37	2,585	931	2,114	1,860
	R	2,433	1,225	1,895	59	1,579	970	217	1,622
	U	49	9	22	20	3,367	900	3,587	2,046
Hooghly	T	465	119	772	23	5,811	658	524	1,628
	R	1,604	434	2,617	64	1,414	735	1,093	2,039
	U	47	4	94	8	7,427	629	314	1,477
Howrah	T	354	60	163	8	3,928	1,619	1,409	2,459
	R	1,243	92	501	9	3,934	604	768	2,849
	U	13	48	34	7	3,925	2,009	1,655	2,309
Presidency Division									
24-Parganas	T	118	36	125	12	6,177	1,323	715	1,494
	R	833	189	863	24	1,661	2,941	441	3,048
	U	21	16	25	10	6,791	1,102	753	1,282
Calcutta	U	16	..	1	26	1,837	2,998	1,937	3,185
Nadia	T	692	223	998	43	3,873	1,146	922	2,103
	R	1,034	320	1,540	31	3,872	332	519	2,352
	U	102	56	61	62	3,876	2,554	1,616	1,673
Murshidabad	T	600	504	1,345	126	1,876	1,300	1,019	3,230
	R	828	824	2,227	31	1,434	1,174	1,098	2,384
	U	258	23	21	268	2,540	1,491	901	4,498
Malda	T	2,412	1,460	1,023	56	1,436	984	449	2,180
	R	2,740	1,668	1,160	52	1,521	770	357	1,732
	U	110	4	61	79	838	2,488	1,093	5,327
West Dinajpur	T	1,488	1,668	1,438	24	1,499	957	622	2,304
	R	1,696	1,914	1,642	28	1,411	500	504	2,305
	U	156	98	128	3	2,060	3,883	1,377	2,295
Jalpaiguri	T	260	749	76	34	6,412	726	392	1,351
	R	284	829	82	34	6,952	558	253	1,008
	U	43	26	18	30	1,497	2,251	1,660	4,475
Darjeeling	T	478	553	159	62	3,782	1,447	578	2,941
	R	723	878	245	87	5,389	65	401	2,212
	U	73	18	16	20	1,132	3,728	870	4,143
Cooch Behar	T	363	305	4,099	49	945	1,084	568	2,587
	R	473	411	5,673	50	382	478	294	2,239
	U	80	29	24	49	2,402	2,652	1,275	3,489

LIVELIHOOD OF DISPLACED PERSONS

STATEMENT I.135

Livelihood pattern of Displaced population in 1951

State and District		Per 10,000 of Displaced population belonging to livelihood class							
		I	II	III	IV	V	VI	VII	VIII
West Bengal	**T**	**816**	**976**	**538**	**46**	**1,576**	**2,024**	**356**	**3,668**
	R	**1,543**	**1,908**	**1,034**	**31**	**1,076**	**1,081**	**133**	**3,194**
	U	**90**	**42**	**42**	**61**	**2,076**	**2,966**	**580**	**4,143**
Burdwan Division	*T*	*540*	*235*	*586*	*62*	*1,838*	*1,797*	*514*	*4,428*
	R	*971*	*348*	*1,052*	*50*	*1,526*	*1,439*	*344*	*4,270*
	U	*96*	*118*	*104*	*73*	*2,160*	*2,168*	*690*	*4,591*
Burdwan	T	916	397	1,151	41	2,152	1,728	295	3,320
	R	1,278	425	1,604	32	2,026	1,610	113	2,912
	U	277	349	348	55	2,374	1,936	619	4,042
Birbhum	T	378	274	799	36	860	984	256	6,413
	R	584	444	1,305	28	1,043	518	144	5,934
	U	60	13	21	50	578	1,700	429	7,149
Bankura	T	119	110	420	31	455	996	123	7,746
	R	148	113	589	21	483	1,018	2	7,626
	U	48	101	4	56	387	942	421	8,041
Midnapur	T	415	328	120	67	946	1,059	967	6,098
	R	633	488	179	50	334	1,150	616	6,550
	U	24	40	13	98	2,044	896	1,596	5,289
Hooghly	T	647	114	362	84	1,876	1,828	288	4,801
	R	1,468	243	816	53	1,496	1,148	220	4,556
	U	37	17	25	107	2,159	2,333	339	4,983
Howrah	T	25	41	125	82	2,201	2,566	908	4,052
	R	36	47	478	142	1,922	2,191	1,310	3,874
	U	21	39	8	62	2,293	2,690	775	4,112
Presidency Division	*T*	*856*	*1,082*	*531*	*43*	*1,539*	*2,056*	*334*	*3,559*
	R	*1,626*	*2,136*	*1,031*	*28*	*1,011*	*1,029*	*103*	*3,036*
	U	*89*	*32*	*33*	*59*	*2,065*	*3,079*	*564*	*4,079*
24-Parganas	T	973	229	696	54	1,773	2,281	407	3,587
	R	2,245	513	1,588	47	1,097	1,633	163	2,714
	U	46	22	46	59	2,267	2,753	584	4,223
Calcutta	U	11	..	..	54	2,155	3,279	612	3,889
Nadia	T	1,242	1,552	520	31	880	1,175	96	4,504
	R	1,424	1,894	613	18	773	733	51	4,494
	U	480	121	128	85	1,330	3,027	285	4,544
Murshidabad	T	800	521	655	36	2,778	1,689	190	3,331
	R	1,052	721	911	32	3,129	1,417	154	2,584
	U	200	46	45	47	1,941	2,335	277	5,109
Malda	T	485	2,928	705	51	922	800	70	4,039
	R	514	3,337	805	27	872	539	68	3,838
	U	279	62	..	222	1,278	2,626	86	5,447
West Dinajpur	T	1,145	3,408	1,341	28	720	1,315	76	1,967
	R	1,260	4,082	1,595	27	610	861	40	1,525
	U	612	301	173	34	1,227	3,408	242	4,003
Jalpaiguri	T	1,298	2,800	290	38	1,246	1,845	450	2,033
	R	1,709	3,818	397	25	1,059	1,239	287	1,406
	U	69	145	11	70	1,735	3,426	875	3,669
Darjeeling	T	136	1,346	96	3	1,563	2,766	1,102	2,988
	R	370	4,586	330	..	1,437	1,034	835	1,408
	U	40	20	..	4	1,615	3,475	1,211	3,635
Cooch Behar	T	1,847	3,046	1,202	27	1,317	1,266	66	1,229
	R	2,157	3,608	1,409	20	1,192	777	24	813
	U	191	49	94	60	1,990	3,877	289	3,450

SECTION 5

BIRTHS, DEATHS AND SURVIVAL RATES

368. This section has been very kindly written for this Report by Sri Sailendranath Sengupta of the West Bengal Judicial Service.

369. The average registered birth and death rates for West Bengal during 1941-50 are 20·5 and 18·9 per *mille* population respectively, yielding a survival rate of only 1·6. (Subsidiary Table I.3) The inaccuracy of vital statistics in West Bengal is well known and attempts have been made in the past to estimate the true birth and death rates by various indirect methods.

370. In his Census Report for 1921 W. H. Thompson estimated the birth rate to be approximately 43·5 per *mille* on the basis of the graduated mean age (23·00) and also of infantile mortality figures obtained by a special inquiry conducted in Murshidabad. A. E. Porter, in his Census Report for 1931, considered the extent of registered deaths aged 5 and over for the decade 1921-30 and deaths at average age 5 and over computed between the Censuses of 1921 and 1931 and estimated the average birth and death rates for the decade 1921-30 as 41·95 and 34·94 per *mille* population respectively.

371. The average birth rate for the period 1941-50 still seems to be of the order of 41 or 42. This is borne out by various considerations.

372. Single year age returns of males and females of a large sample population for West Bengal have been published in Union Table CV in the Tables Volume of the Census of 1951. They were graduated by the method of osculatory interpolation adopted in the Canadian Census Report of 1941.* The details of graduation, the formulae employed and the results obtained will be found in Chapter VI of the present Report. If we apply to the graduated figures the corresponding proportions living out of 100,000 born as estimated by the All-India Census Actuary in 1931 (Census Report of India, 1931, Vol. I, pp. 175-176), we may have an estimate of the persons born corresponding to persons alive at individual ages as found by graduation of the crude figures. The life tables start with an initial 100,000 births and show how many out of these are expected to survive at beginning of each succeeding year. Thus the l_x column (Bengal, Male) gives the figures 75,044 for l_1 and 68,090 for l_2 which means that, with the death rates on the basis of which the life table was constructed, 75,044 out of 100,000 survive for one year and 68,090 survive for two years and so on. Taking the reciprocals we thus infer that corresponding to those who have completed their first year, $\frac{100{,}000}{\cdot 75044}$ or 1·33 times the number were born one year ago; and corresponding to those who have now completed their second year, $\frac{100{,}000}{\cdot 68090}$ or 1·47 times the number were born two years ago,—and so on for every year. Thus by totalling up we get for present ages† 1-9, the number of children of both sexes born as 766,967 for the sample corresponding to 8,356,872 for the total population, the latter 24,810,308, being 10·896 times the sample population of 2,276,925.†† The corresponding registered births account for a total of 4,211,310 only, showing a defect of about 50 per cent.

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* This method does not correct the understatement at age 0. In fact the graduated figure is less than the crude figure.

† Group 1-9 has been adopted for two reasons—(1) Vital Statistics for 1919 was not available, (2) Graduated figures for age 0 is not reliable. The graduated figure for age-group 1-9 will obviously be somewhat an over-statement. Present ages mean those who have completed their 1st to 9th years.

††The Displaced Population being overwhelmingly Bengali it is presumed that it will have in the main similar mortality characteristics to the resident population.

On this calculation the birth rate works out to be 20·5 times 1·984, that is, 40·7 per *mille* which confirms the previous estimates of W. H. Thompson and A. E. Porter. This method, necessarily a rough and ready one, assumes the death rates to be the same as adopted in the calculation of the life tables on the basis of the 1931 census figures. If we hold the normal death rates in the last decade (1941-50) to be lower than those adopted in 1921-30, as, indeed, there is reason to do, the birth rate will be somewhat lower than 40·7 per *mille*. A further consideration is that births and deaths are spread over throughout the year and not at either at the end or beginning of the same.

373. W. H. Thompson assumed that the expectation of life (reciprocal of the mean age) is a reciprocal of the birth rate also. The birth rate, however, is not ordinarily a reciprocal of the mean age. It is only the birth rate of a *stationary population* that is a reciprocal of the mean life expectancy at birth, which is a different matter. In a 'stationary population' the birth rate and the death rate coincide, and obviously for an ordinary population, subject to change, the birth rate will be higher than the reciprocal of the mean life expectancy at birth.

374. Let us now attempt to make an estimate of the survival rate. To do so we have to base our estimate on the figures for non-Muslims only, owing to the fact that a large unknown number of Muslims migrated to Pakistan between 1947 and 1950.

375. We have also to make a correction for excess of *net* immigrants found in 1951 over those in 1941 and have perforce to assume immigration to have been evenly spread over the decade 1941-50, The number of all immigrants recorded in 1941 is obviously grossly exaggerated and so we take the mean of 1931 and 1951 figures. This works out as follows:—

Year	Immigrants	Emigrants	Net Immigrants
1951	1,981,734	311,116	1,670,618
1941	1,729,820	185,753 (estimated)	1,544,067
Net increase by migration between 1941 and 1951			— 126,551
Estimated net gain by migration for 1941-50			= 63,276

376. The number works out to be only 63 thousands. There are weighty reasons why the published population of West Bengal for 1941 cannot be accepted at its face value. At that census the two major communities vied with each other in falsely inflating their strength. A preliminary count was taken in December 1940, details of which will be found in the next section of this Chapter. The estimate for West Bengal in this preliminary count in December 1940 was 20·757 millions, which was probably much closer to the truth. The proportion of non-Muslims in West Bengal to total population both in 1931 and 1941 was 0·7475. Applying this factor to the preliminary count (20·757 millions) of December 1940, the non-Muslim population in the 1941 population seems to have been 20·757 × 0·7475 or 15·516 millions. In 1951 the non-Muslim population, excluding the influx of Displaced population from Pakistan between 1947 and 1950, works out at 17·786, that is 17·723 millions, if half the net gain by migration between 1941 and 1951 is deducted. The arithmetic is as follows:—

Year	Nature of population	Amount (thousands)
1951	Non-Muslim population	10,885
	Displaced persons	2,099
	Excess immigrants	63
	Net non-Muslim populaton	17,723
1941	Total population (as preliminary count of December 1940)	20,757
	Proportion of non-Muslims to total population	0·7475
	Estimated non-Muslims	15,516
Increase between 1941 and 1951		=2,207
Percentage rate of increase for the decade		=14·2

So the net increase is 2·207 millions or 14·2 per cent for the decade or 1·42 per cent per year on the average.

377. We have seen that the true average birth rate is in the neighbourhood of 41 per *mille* population and so the average death rate is of the order of 27/28 per *mille* population. The inaccuracy of registration is thus of the order of 50 per cent. so far as births are concerned and 31 in the case of deaths. These estimates are of the same order as estimated by a recent survey of the Directorate of Health Services held in 1948*.

378. It is obvious that with such a large error it would be futile, or at best an exercise in arithmetic, to attempt estimates of birth rates and death rates year by year. The results seem to indicate that registration of births and deaths far from improving since 1921 or 1931 may have further deteriorated in 1941-51. An examination of the crude figures would show that registration was particularly faulty in the years 1944-47 (Subsidiary Table I.3). It is of course possible to step up the annual rates uniformly by multiplying by a correction factor, as was done by W. H. Thompson in 1921 (pp. 215-219 of Census Report of Bengal, 1921), and present apparently smooth and acceptable rates, but that would not be able to deceive the incredulous investigator.

379. A. J. Lotka's version of Farr's rule (J. A. S. A., December 1921) connects birth and death rates with expectation of life by a simple equation. It is

$$\frac{1}{e} = \frac{1}{3b} + \frac{2}{3d},$$

where e is the 'expectation of life', b the 'birth rate' and d the 'death rate'. For England and Wales, a closer approximation was

$$\frac{1}{e} = \frac{1}{4b} + \frac{3}{4d},$$

380. The life table of 1931 (concerning Bengal, Assam and Sikkim males), yields the value of e to be 24·91, of which the reciprocal is 40·15 (per *mille*). But since even the death rate in our case is higher than the expectation of life, it follows that Farr's rule is not applicable directly to our figures.

Famine Mortality, 1943-44

381. It would be interesting to attempt an estimate of the mortality caused by the famine and epidemics of 1943-44. But in doing so we shall have to make a large assumption that the registration of deaths was uniformly inaccurate throughout the decade 1941-50.

382. The recorded death rate per *mille* for the years 1943, 1944 and 1945 are 29·5, 27·2 and 21·2 respectively. The rates are lower for other years. So we may safely assume that any excess over 20 per *mille* is accountable to the famine and its after-effects. So ignoring other adjustments we get approximately (9·5+7·2+1·2)×60·3 millions/1000 or 1·079 millions as the estimated number of deaths due to famine and its after-effects. We have to correct this estimate for inaccuracies of death registration which are 31 per cent. according to our previous calculation.

383. Thus for the whole of Bengal, the estimated famine mortality appears to have been 1·31×1·079=1·413 millions. The registration of deaths was obviously much more inaccurate in 1943 and 1944, than normally, and so the Famine Inquiry Commission's estimate of 1·5 millions is fully borne out by these figures.

384. On the assumption of equal incidence throughout the old province of Bengal, the estimate for the present State of West Bengal works out at

1·31×(9·5+7·2+1·2)×20·76 millions /1000 or about 487 thousands.

Details

385. The accuracy of vital statistics in West Bengal has been tested from time to time. The first investigation was made in Thana Galsi of Burdwan between 1906 and 1909. The second investigation was commenced in 1914 and

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* Applying Chandrasekhar and Deming's formula on the statistics published in the Pilot Survey of 1948 a birth rate varying from 34 to 40 per *mille* according to area considered and a death rate of about 29 per *mille* are obtained—A. M.

extended over Malda, Jalpaiguri, Burdwan and Murshidabad. The Census Superintendents of 1921 and 1931 contributed two important chapters on the accuracy of vital statistics. Two important investigations were undertaken in recent years, one in Singur in 1944 and the other in selected police stations of several districts of West Bengal in 1947-48. Details of the vital statistics record of West Bengal during 1941-50 will be available in Part IB of this Report published separately in December 1952.

SECTION 6

LIVELIHOOD PATTERN

386. It has been said that in the past the Indian Census was much too preoccupied with tabulation by caste and religion and did not devote enough attention and energy to a satisfactory economic classification of the population. While it would be unfair on past censuses to put it the way it has often been put in the Press or to hail the economic classification attempted in this census as something never before attempted in the past ones, there has been a very welcome change in emphasis in moving away from caste tabulation to economic classification of the population. The ball was set rolling by M W. W. M. Yeatts, Census Commissioner in 1941 and first Registrar General in 1949, who devised the draft questionnaire for the last census, and the key was set by Sardar Vallabhbhai Patel, Home Minister for India, in his inaugural address to Census Superintendents of the States on 23 February 1950. He said:

> There is also another departure from past practice. Formerly there used to be elaborate caste tables which were required in India partly to satisfy the theory that it was a caste-ridden country and partly to meet the needs of administrative measures dependent on caste divisions. In the forthcoming census this will no longer be a prominent feature and we can devote our energies and attention to the collection and formulation of basic economic data relating to the means of livelihood of the people and other economic activities of the individual and the State.

387. The economic tables of past censuses, especially between 1901 and 1931, have been underrated in the past. The point that there is a great deal of material on livelihood and economic condition in the reports of past censuses will be evident if we compare the questionnaires of 1931, 1941 and 1951 and the tables finally published between 1901 and 1951. The following is a comparison of the questionnaires of 1931, 1941 and 1951.

1931	1941	1951
Whether a person is an earner or a dependant.	1. Whether a person is an earner or a dependant.	1. Whether a person is self-supporting, an earning dependant or a non-earning dependant.
2 Principal occupation.	2. Principal occupation.	2. Whether a person is an employer, an employee or an independent worker.
3 Subsidiary occupation.	3. Subsidiary occupation.	3. Principal occupation.
4 The extent of educated unemployment.	4. The extent of educated unemployment.	4. Subsidiary occupation of self-supporting person or occupation of an earning dependant.

388. The Censuses of 1911 and 1921 prepared the most elaborate economic tables. Compared to their presentation of occupations and livelihoods, the tables of 1931 were abridgements. But even in 1931 they were quite elaborate and could bear comparison in point of fullness with the three previous ones. For the purpose of this census the population has been divided into eight main livelihood classes, of which 4 are agricultural and 4 non-agricultural. As for the 4 agricultural classes, it will be presently seen that in the very nature of the land laws prevailing the definitions imposed were somewhat vague and ambiguous so that the information each class yields individually loses some of its value either as absolute figures or for comparison between one State and another. But under the existing tenancy laws it is difficult to improve upon them. Former censuses had three broad agricultural

classes: rent-receivers, rent payers, and agricultural labourers. This classification was a trifle bald, and the fourfold classification of 1951 was decidedly an improvement so far as the results are concerned. As for the 4 non-agricultural livelihoods previous censuses had 4: Industry, Commerce, Professions and Miscellaneous and Unproductive Occupations and the entire population was classified under these heads. The 1951 classification into Production other than Cultivation, Commerce, Transport and Other Services and Miscellaneous Sources is perhaps more complete and satisfactory than that of previous years. A census of small-scale industries employing 20 persons or less, inaugurated in 1950, was not pursued with vigour either at the Centre or in the States and the results achieved in that census cannot be said to have been either complete or suitable to replace the industrial censuses of previous years.

389. There have been several departures. First, each unit of area was divided into rural and urban sectors. It may be argued that an elaborate agricultural, non-agricultural breakdown for every village is hardly of great intrinsic value in the demographic analysis of a country like India where village and urban economies are not a differentiation merely between two sectors of an integrated economy, as would be the case if a similar distinction were made in the West, but a distinction between two different economies, with limited points of contact between them. On the other hand in zones where rural and urban areas interpenetrate one another the rural urban classification provides a most interesting picture of shifts from cottage crafts to industrial manufacture, and the patterns and extent of employment in the eight livelihoods.

390. The second departure attempted was of classifying the population into (i) self-supporting persons, (ii) non-earning dependants, and (iii) earning dependants. Formerly there were only earners and dependants. The earner-dependant classification is sharp and clear cut. Anyone who is not in the one is bound to be in the other. It may be correct to say that in a pain economy, conspicuous for its lack of any minimum standard of living whatsoever, it is dangerous to attempt water-tight divisions which leads to over-simplification and, consequently, to falsification. On the other hand, it may not be worth while to attempt smooth and interlocking graduations of differences (into self-supporting persons, earning and non-earning dependants) which are liable to confuse the honorary village enumerator uninitiated in the mysteries of a standard of living. Then, again, the standard of self-sufficiency varies between alarmingly wide limits from person to person and from area to area, State to State. In a village of scheduled tribes a person may be self-supporting with an income of Rs. 5 per month, while in the city the same person would not be able to support himself with less than Rs. 30. This for a person with no encumbrance of such a thing as an idea of a minimum standard of living, and it is easy to imagine how much more difficult it would be for another person, on a higher social and economic level to consider the question even objectively. But as it was the respondent who always decided his own economic status for the census record, this classification gave a good picture of the twilight region or penumbra, and as such is of great value to the demographer. As will be presently seen it yielded fairly good results.

391. The third departure attempted was of classifying each non-agricultural self-supporting worker into (*a*) employer, (*b*) employee, and (*c*) independent (or own account) worker. Here the definition of the term 'employer' was so widened in scope as largely to encroach upon the category of 'independent worker'. Any own-account worker, for example, a humble street hawker, who hired a boy to push his

perambulating booth, was in his right to call himself an employer—the definition granted him that right—and thus get a social leg up. The low proportion, of independent workers in West Bengal may have been due to this wide definition. The results have been particularly interesting in those zones where the village and the industrialised town interlock each other. Here the proportion of independent workers in the population yields a fair idea of the extent to which own-account cottage industries are still very much alive or are giving way to organised industry. In the semi-industrialised town they show rather vividly the tension between the old rural economy and the new industrial economy. Generally, everywhere, they reflect the common aspiration among all skilled workers who, having inherited or acquired a skill and some capital, wish to set up small establishments on their own to turn out goods for the market. If only a classification by age groups of 'independent workers' were available it could tell the demographer whether the own-account worker was still quite flourishing or stagnant or waging a losing battle with organised industry.

392. In its actual working, the Economic Classification Scheme presented several minor difficulties. The United Nations Organisation introduced an International Standard Industrial Classification Scheme and the Indian Census was expected to fall in line to provide international comparability of its figures. This International Standard Industrial Classification Scheme was mainly devised to secure uniformity more in money or market economies in which the unit of classification was the organised "Establishment". But in a subsistence economy like India's, the unit of classification perforce had to be the "Individual". This dichotomy is set forth in the following passage quoted from the Registrar General's tabulation plan.

1. **Comparison with ISIC Scheme**—The United Nations Organisation has evolved a Scheme of Classification of all economic activities known as the "International Standard Industrial Classification" Scheme. The Economic and Social Council of the United Nations has recommended the use of this Scheme by all member Governments "either by adopting this system of classification as a national standard, or rearranging their statistical data in accordance with this system for purposes of international comparability". The present scheme of classification gives effect to the latter of the two alternative forms of this recommendation. There are 10 divisions and 44 major groups of economic activities under the ISIC Scheme which include Agriculture and, in addition, correspond to the 10 Divisions and 88 Subdivisions of Industries and Services under the ICEC Scheme.

2. **Unit of Classification**—Under the ISIC Scheme, the Unit of Classification is the organised "Establishment". The commodity produced or the service performed as a result of the work of the organised establishment is the criterion for classifying the establishment. The classification of the establishment is the classification of every member of the establishment.

Under the present (ICEC) Scheme the unit of classification is, in every case, the individual. All employers and all independent workers will be classified with reference to the commodity produced or service performed by them individually—this will be same as in the ISIC Scheme there being no question of an "establishment" distinct from the individual in these cases.

As regards "Employees", all persons engaged in production, commerce or transport (and not being domestic servants) will be classified under the appropriate sub-divisions with reference to their own activity, and without reference to that of their employer. Domestic servants will all be classed in one sub-division without reference to the nature of their work. All other employees (including all managerial and supervisory employees, clerical services, messengers, watchmen and unskilled labour of every description) will be classified with reference to the commodity produced or service rendered by their employers.

Thus, there is a technical distinction regarding the unit of classification adopted in the two Schemes. This is unavoidable having regard to the nature of the questions which alone can be put in a general population census in India. Nevertheless, there will be no difference between the two Schemes, except as regards the allocation of those "employees" who are individually engaged in activities classifiable as production, commerce or transport, and who are employed in "establishments" whose main purpose is classifiable differently from the activity of the individual employee. The proportion of employees of this kind to the total of all active workers in industries and services (as they are organised at present in India) is unlikely to be large enough to make a significant difference to the comparability of data classified under the two Schemes.

393. In actual working this compromise between the ISIC and ICEC Schemes presented several difficulties. For example, how was a typist, a stenographer, an accountant, an auditor, a school teacher, a doctor, a road engineer, or a commercial artist employed in a tea estate to be classified? The tea estate itself falls under group O.31 in Livelihood Class V while each one of the above should fall under some group or other in Livelihood Class VIII. Since group O.31 is not further divided into a number of subgroups to show these different occupations obtaining in a tea estate it would be confusing the student if all the above categories were lumped under O.31. On the one hand, such a lumping would furnish an exaggerated record of the number of persons engaged in the production of tea employed in a tea estate. On the other, it would deny the reader an estimate of the total number of typists, stenographers, accountants, auditors, school teachers, doctors, road engineers, commercial artists, etc., etc., available in the State or in a district. This would leave a serious hiatus in the occupational account of the State. Nor would this hiatus be quite as small as one might imagine. Its implications also are considerable because it is more or less such occupations in Livelihood Class VIII serving as 'employees' in Establishments under Livelihood Class V, which form valuable slabs in the age and literacy-and-education groups of the population. In the case of West Bengal, therefore, a departure was made to show such skilled employees under their groups in Livelihood Class VIII where they properly belong.

394. But this was a fairly simple decision to take, once the State Superintendent made up his mind about it. Not so with matters that went into greater detail. For example let us take the following subdivision or group definitions:

8.6 Employees of Municipalities and Local Boards (but not including persons classifiable under any other division or subdivision).

8.7 Employees of State Governments (but not including persons classifiable under any other division or subdivision).

8.8 Employees of the Union Government (but not including persons classifiable under any other division or subdivision).

9.63 Architects, Surveyors, Engineers, and their employees (not being State servants).

395. It will be acknowledged that these definitions have the effect of understating both (*a*) the total number of employees in each subdivision so far as servants of local bodies, State and Union Governments are concerned, and (*b*) the total number of persons engaged under any of the four non-agricultural livelihood classes. It is difficult to set out in detail what each sorter did on this particular point and naturally the final tabulations are bound to be a little uncertain.

396. The Registrar General's instructions on the economic questions of the census questionnaire are quoted for the benefit of the reader. The following is a quotation *in extenso* of his instructions on census questions 9, 10 and 11:

CENSUS QUESTIONS 9, 10 AND 11 AND RELATED INSTRUCTIONS

1. The Census is concerned with two economic characteristics of every individual—his economic status, and his means of livelihood. The scope and meaning of these expressions will appear from an explanation of the three census questions, *viz.*:—

Question 9—Economic status;
Question 10—Principal Means of Livelihood; and
Question 11—Secondary Means of Livelihood.

2. **Form of questions:**

Question 9—Economic status.

Part One—Dependency—Write 1 for a self-supporting person, 2 for a non-earning dependant, and 3 for an earning dependant. Write the answer in the first compartment.

Part Two—Employment.—If a self-supporting person earns his Principal means of livelihood as an employer write 1, as an employee write 2, as an independent worker write 3. Write 0 in other cases. Write the answer in the second compartment.

Question 10—Principal means of Livelihood.—An answer to this question should be recorded on every slip. If the slip relates to a self-supporting person record his principal means of livelihood. If the slip relates to a dependant (whether earning or non-earning) record here the principal means of livelihood of the self-supporting person on whom he is dependent. The means of livelihood which provides the largest income is the principal means of livelihood for a self-supporting person who has more than one means of livelihood. In the case of other self-supporting persons it is the only means of livelihood.

Use the following contractions.—Write 1 for a person who cultivates land owned by him; 2 for a person who cultivates land owned by another person; 3 for a person who is employed as a labourer by another person who cultivates land; 4 for a person who receives rent in cash or kind in respect of land which is cultivated by another person.

For all other means of livelihood write fully and clearly what the person does in order to earn his livelihood and where he does it.

Question 11—Secondary means of livelihood.—For a self-supporting person who has more than one means of livelihood write the means of livelihood next in importance to his principal means of livelihood. For an earning dependant write the means of livelihood which provides the earning. Use contractions given in question 10.

For a self-supporting person who has only one means of livelihood write 0. In the case of a non-earning dependant also, write 0.

3. **Question 9—Economic Status**—This question is in two parts. The first part requires the labelling of every person as "a self-supporting person", or "an earning dependant" of "a non-earning dependant". Every single human being must be allotted one of these labels and not more than one of them, and this will be referred to as his Primary Economic Status.

The second part of the question has no application to non-earning dependants or to earning dependants. It relates only to self-supporting persons; and even among them those exceptional cases of self-supporting persons who support themselves without gainful occupation or economic activity (*e.g.*, rentiers and pensioners) are not covered. All others (that is, all those self-supporting persons who are both economically active and gainfully occupied) are to be allotted one or other of the three labels, *viz.*, "Employer"; "Employee"; or "Independent Worker"; and this will be referred to as his Secondary Economic Status.

The following extracts from the model-instructions to enumerators explain the criteria to be applied and the treatment of border-line cases.

"Where a person is in receipt of an income, and that income is sufficient at least for his own maintenance then he (or she as the case may be) should be regarded as a "self-supporting person". Such income may be in cash or kind.

Anyone who is not a "self-supporting person" in this sense is a "dependant". A dependant may be either an "earning dependant" or a "non-earning dependant"; the test is whether or not he secures a regular income, even though it may be small. Where the income which he secures is not sufficient to support him, that person is an 'earning dependant'. A person who does not secure any income either in cash or in kind, is a non-earning dependant'.

Where two or more members of a family household jointly cultivate land and secure an income therefrom, each of them should be regarded as earning a part of the income. None of them is, therefore, a non-earning dependant Each of them should be classed as either a self-supporting person or an earning dependant, according to the share of income attributable to him (or her). The same applies to any other business carried on jointly.

This does not mean that anyone who works is necessarily a self-supporting person or an earning dependant. Thus, for instance, a housewife who cooks for the family, brings up the children or manages the household is doing very valuable work. Nevertheless, her economic status is that of a non-earning dependant, if she does not also secure an income.

An Employer (is) only that person who has necessarily to employ other persons in order to carry on the business from which he secures his livelihood. A person (who) employs a cook or other person for domestic service should not be recorded as an employer merely for that reason.

Persons employed as managers, superintendents, agents, etc. (who) control other workers are also employees only, and should not be recorded as employers.

An independent worker means a person who is not employed by anyone else and who does not also employ anybody else in order to earn his livelihood."

4. **Question 10—Principal Means of Livelihood**—"Means of Livelihood" of any individual ordinarily means the gainful occupation which forms the source from which that income which is utilised for his maintenance

is normally derived; but it is more comprehensive, inasmuch as in exceptional cases, income may be secured without gainful occupation. "Principal Means of Livelihood" means the same thing as "Means of Livelihood" for every person who has only one means of livelihood. Where a person has more than one, that which gives him the greater part of his income is his "Principal Means of Livelihood". In the sense thus defined, every human being, without any exception, has a Principal Means of Livelihood—whether or not he is a self-supporting person. Every non-earning dependant is maintained exclusively by the income of some self-supporting person on whom he is dependent. Consequently, the Principal Means of Livelihood of the latter is required to be recorded as the Principal Means of Livelihood of the former. The same rule applies to Earning Dependants also (no attempt being made to assess the degree of sufficiency of his own income or the extent of his dependence on others).

Agricultural and non-agricultural means of livelihood are distinguished by the manner in which enumerators are required to record the answers to this question. This is important for purposes of subsequent classification of the answers. The following extracts from instructions are relevant:—

"Four simple contractions have been provided which will cover most cases where the livelihood is dependent on agriculture—Write 1 for a person who cultivates land owned by him; 2 for a person who cultivates land owned by another person; 3 for a person who is employed as a labourer by another person who cultivates land; 4 for a person who receives rent in cash or kind in respect of land which is cultivated by another person. If you find that a person falls under two of these categories note that category which provides the largest income against question 10 and the second against question 11. No note need be taken of more than two such categories in any case."

"In all other cases . . . . . Write fully and clearly what the person does in order to earn his livelihood and where he does it. There are three lines on the slip provided for answering this question. Use them fully. Avoid vague and general terms. Do not write "service", or "labour". If you are enumerating a trader, describe the articles in which he is carrying on trade and state clearly whether he is a wholesale trader or a retail trader. A retail trader sells to the public. A wholesale trader does not. If you are enumerating a factory worker give the name of the factory or the product it makes, *e.g.*, coal mine, jute factory, cotton mill, etc."

(NOTE—The word "owned", used in relation to land, includes every tenure which involves the right of permanent occupancy of land for purposes of cultivation. Such right should be heritable; it may be, but need not necessarily be, also transferable.)

5. **Question 11—Secondary Means of Livelihood**—A self-supporting person may or may not have more than one means of livelihood. If he has more than one, that which provides the greatest income is recorded under question 10 as the "Principal Means of Livelihood" and the next under Question 11 as the "Secondary Means of Livelihood". It has been laid down that no note should be taken of more than two such means of livelihood in any case.

The answer to this question is invariably 'Nil' for non-earning dependants. *Ex-hypothesi* they secure no income; they are supported by the Principal Means of Livelihood of the persons on whom they are dependent which alone is taken to be their only means of livelihood.

In the case of every earning-dependant, there are two means of livelihood which are combined in order to support him. One is the Principal Means of Livelihood of the person on whom he is dependant. The other is the source wherefrom he secures his own income. The former is always to be treated as the "Principal Means of Livelihood" of the "earning dependant"; and the latter as his "Secondary Means of Livelihood".

6. Further elucidation of the scope and implications of these questions has been provided in supplementary instructions in the form of question and answer.

These are extracted below:

I—*Census Question 9(1)*—

Question 1.—In the Instructions the words are "the test is whether he secures a regular income, even though it may be small. Does the use of word 'regular' rule out persons who earn an income by seasonal employment?

Answer.—No. The word 'regular' is used in the sense of 'non-casual'. It is not intended to be confined only to income derived from continuous employment. It also includes income derived from seasonal employment. What it does exclude is individual income accruing casually and not constituting a source of income which is regularly depended upon.

Question 2.—The word 'self-supporting' as defined in the instructions, means any person whose income is sufficient at least for his own maintenance. Does this mean that an income sufficient for one man is self-supporting income? What about his direct dependents—wife, children, etc.?

Answer.—Yes. The instructions mean what they say. A person must be deemed to be self-supporting if his income (such as it is) is sufficient to support him individually at his present level of living (such as it is). He does not cease to be self-supporting merely for the reason that he, his wife and children taken together are not maintained by his own income.

If the wife and children have no income of their own, they are non-earning dependants. The instructions provide that their principal means of livelihood should be deemed in every case to be the same as that of the person on whom they are dependant. This would in most cases be the husband or father who will also be the head of the household. In those exceptional cases where the husband or father is not the head of the household, and is also not able to support anyone but himself, then the head of the household in which the non-earning dependant is living is the person on whom he (or she) is dependant.

Remember—every "family household" is (collectively) self-supporting; otherwise it would not exist. The surplus of self-supporting persons within a family household is in every case sufficient to meet the deficit on the earning and non-earning dependants in that family household.

Question 3.—In the instructions it is recorded that if two or more members of the family household jointly cultivate land they would be classed as self-supporting or earning dependant "according to the share of income attributable to him or her". How are these shares to be assigned? What about females who, in some cases, take an active part in agricultural operations?

Answer.—The share of the income attributable to a person is what the head of the household (or whoever is the managing member) deems it to be. No attempt should be made to make a detailed calculation of this share. All that has to be ascertained is whether (in the opinion of the head of the household or managing member) the member concerned is entitled to a share which would be sufficient to cover the cost of his own maintenance.

If the answer is 'yes', he is 'self-supporting'; if the answer is 'no', he is an 'earning dependant'.

The considerations are exactly the same whether the individual is a male or a female, an adult or a non-adult.

II—*Census Question 9(2)*

Question 4.—Are doctors and lawyers, who employ compounders and clerks independent workers or employers?

Answer.—They are employers. A doctor employs a compounder in order to relieve him of part of the work connected with the business on which he is engaged and by which he secures his livelihood. A lawyer employs a clerk for a like purpose.

Question 5.—A money-lender employs four persons to realise interest. Is he an employer or independent worker?

Answer.—He is an employer. He would be an employer even if he employed only one person provided that person was regularly employed and derived his principal means of livelihood by such employment. Casual employment, or part-time employment which does not provide the principal means of livelihood of the person employed, should not be taken into account.

Question 6.—What is the status of tenants or zemindars who do not cultivate themselves but employ labourers?

Answer.—If they employ others they are 'employers'—provided the purpose of the employer and the nature of the employment are as stated in the answers to the two preceding questions.

Question 7.—What is the status of beggars; orphans in orphanages; convicts in jail?

Answer.—They fall in none of the three categories. Record 0 for them.

III—*Census Question 10*—

Question 8.—What is the category of a minor, a blind person or a lady who has land in his or her name but gets it cultivated by labourers.—Category 1 or Category 4?

Answer.—Learn to distinguish between "cultivation of the land", and "performance of labour necessary for cultivating the land". There are, of course, millions of persons who perform both functions—but the functions are distinguishable and should be distinguished. The man who takes the responsible decisions which constitute the direction of the process of cultivation (*e.g.*, when and where to plough, when and what to sow, where and when to reap and so on); it is this person who should be referred to as the cultivator, even though he does not perform any manual labour whatever. The man who ploughs, or sows, or reaps, under the direction of someone else is not the cultivator—but a cultivating labourer, a different thing altogether.

The cultivator may be owner of the land cultivated. In that case he is category 1, whether or not he also combines in himself the functions of a cultivating labour.

Alternatively, the cultivator may be a lessee, an agent or manager (paid or unpaid). Even in this case it is immaterial whether this lessee or agent or manager also combines in himself the functions of a cultivating labourer; he (the cultivator) is category 2, and the other person (the owner) is category 4.

Applying these principles, the answer to the question put depends on whether the minor, blind person, or lady does or does not actually direct the process of cultivation. If the person does this, the answer is category 1; otherwise the answer is category 4.

397. The following is quoted from the Registrar General of India's note on 'The Indian Census Economic Classification Scheme' which, apart from explaining the scheme, elaborates the concepts behind it and how the economic tables in the census of 1951 should be read or interpreted. Further details will be available in Chapters IV and V and the title pages of the three economic tables in the Tables volume for West Bengal.

THE INDIAN CENSUS ECONOMIC CLASSIFICATION SCHEME

1. **1931 Scheme of Occupations**—The last occasion on which the economic characteristics of the people were not only ascertained but also classified and tabulated on an All-India basis was in the 1931 census.

The basis of classification adopted at that census was a Scheme of Occupations consisting of four Classes, 12 Sub-classes, 55 Orders and 195 Occupational Groups. The total following the occupations for each Class, Sub-class, Order and Group was given, together with sub-totals for numbers following occupations as "principal occupation" or as "working dependent" or as "subsidiary to other occupations".

2. **ICEC Scheme**—The Scheme of Classification set out in this memorandum may be referred to as the Indian Census Economic Classification Scheme. It is based on the 1931 Scheme of Occupations. It embodies, however, extensive revision and re-arrangement designed to secure the following purposes *viz.*,—

(i) to establish a comprehensive economic classification of the people as a whole, and not merely of persons who are gainfully occupied;
(ii) to simplify and improve the method of presentation of census economic data; and provide additional data;
(iii) to secure international comparability of data as recommended by the Economic and Social Council of United Nations.

3. **Basis of Classification—Economic Status and Means of Livelihood**—The 1951 Census seeks to ascertain the "economic status" and the "means of livelihood" of every person enumerated. Questions 9, 10 and 11 relate to these economic characteristics. The answers to Question 10 and the two parts of Question 9 will form the basis of classification of each individual.

4. **Livelihood Categories and classes**—On the foregoing basis, the people will be divided into two broad livelihood categories, *viz.*, the Agricultural Classes and the Non-Agricultural Classes.

There will be four Agricultural Classes, defined as below:

I—Cultivators of land, wholly or mainly owned; and their dependants
II—Cultivators of land, wholly or mainly unowned; and their dependants
III—Cultivating labourers; and their dependants and
IV—Non-cultivating owners of land; agricultural rent-receivers; and their dependants

There will be four Non-Agricultural Classes, defined as comprising all persons (including dependants) who derive their principal means of livelihood from—

V—Production (other than cultivation)
VI—Commerce
VII—Transport
VIII—Other Services and Miscellaneous Sources

All these Classes will be referred to as Livelihood Classes.

5. **Livelihood Sub-classes**—Each of the 8 Livelihood Classes will be divided into three sub-classes, with reference to their economic status as below:

(i) Self-supporting Persons;
(ii) Non-earning Dependants; and
(iii) Earning Dependants.

6. **Economically active, semi-active, and Passive persons**—All non-earning dependants are economically passive. They include persons performing house-work or other domestic or personal services for other members of the same family household. But they do not include "unpaid family workers" or persons who take part along with the members of the family household in carrying on cultivation or a home industry as a family enterprise.

All earning dependants are economically semi-active only. Though they contribute to the carrying on of economic activities, the magnitude of their individual contribution is deemed to be too small to justify their description as economically active. [Their contribution to economic activity is, however, taken into account, in the tabulation of data based on secondary means of livelihood.]

All self-supporting persons are, ordinarily, economically active. But, there are certain classes and groups which constitute an exception to this rule.

These are mentioned below:

(i) All self-supporting persons of Agricultural Class IV.
(ii) The following groups of self-supporting persons who are included in Non-Agricultural Class VIII, and derive their principal means of livelihood from miscellaneous sources (otherwise than through economic activity):
(a) Non-working owners of non-agricultural property,

(b) Pensioners and remittance holders,
(c) Persons living on charity and other persons with unproductive occupations, and
(d) inmates of penal institutions and asylums.

7. **Classification of economic activities and economically active persons**—Economic activities may be defined as including all activities of which the result is the production of useful commodities or the performance of useful services ; but not including the performance of domestic or personal services by members of a family household to one another.

The most important among all economic activities is the cultivation of land (or the production of field crops). It stands in a category by itself. All other economic activities may be regarded as falling in another category which may be referred to as "industries and services". All these activities may be classified with reference to the nature of the commodity produced or service performed. Under the present scheme, all Industries and Services are classified in 10 divisions ; and these divisions are sub-divided into 88 subdivisions. The scope of activities included in each subdivision is indicated by its title, as well as by the specification of groups which are comprised in them.

Economically Active Persons engaged in cultivation, are either cultivators or cultivating labourers—that is, they are persons of sub-class (i) of Agricultural Classes I to III.

Economically Active Persons engaged in Industries and Services are classifiable in divisions and subdivisions. All persons included in each subdivision are further divisible into three sections, *viz.*,

(i) Employers,
(ii) Employees, and
(iii) Independent Workers.

In effecting this classification, no account will be taken of whether the classified person was actually employed or unemployed on the date of enumeration. He should be allocated to that particular description of economic activity, from which he has in fact been deriving a regular (that is non-casual) income, as his principal means of livelihood.

8. **Form and Method of Tabulation**—The replies recorded in Census Slips against Census Questions 9, 10 and 11 will be used for classifying every enumerated person within the framework of economic classification of the people described above. The result will be exhibited in three tables entitled, "The Economic Tables I, II and III" There will be approximately 350 million census slips which will have to be sorted by hand, and not by mechanical process.

9. **Comments on Economic Tables**—*Economic Table I*—will show the numbers of 24 livelihood sub-classes grouped under 4 agricultural classes and 4 non-agricultural classes. A complete picture will be presented of economically active, semi-active and passive persons.

Economic Table No. II—will specify the number in each of the 8 classes mentioned above, who possess a secondary means of livelihood ; and cross-classify them (according to the nature of such means of livelihood) under the same eight classes. [This table is designed to include not only self-supporting persons who have more than one means of livelihood, but also earning dependants—who supplement (with their own contribution) the resources provided for their maintenance by the persons on whom they are dependent. The contribution made to economic activity by economically semi-active persons will be shown by this Table.]

Economic Table No. III—is limited to economically active persons. The numbers of persons engaged in industries and services as a whole, as well as in each division and subdivision thereof will be shown in this table, divided into the three sections "Employers", "Employees", and "Independent Workers".

In all three tables, the numbers are separated by sexes, as well as residence in urban and rural areas. The All-India Tables will furnish totals by States. The State Tables will furnish total, by Districts.

10. **Comparability**—The principal change involved in the present Scheme is the setting up of a comprehensive economic classification of the people as a whole ; and not merely of those among them who are engaged in gainful occupation. In the process of sorting of census information, the division of the people into "livelihood classes" takes the place of the division of the people into "communities" at the former censuses.

Consistently with this main purpose, the present scheme of classification is based mainly on the Scheme of Occupations of former censuses. Comparability with the published census tables of 1931 is secured by the references to the Occupational Group numbers of the 1931 census.

398. It will be useful to preface a discussion of the livelihood pattern of the general, rural, and urban population of the State with a brief account of the problems posed by the First Report of the National Income Committee of the Department of Economic Affairs, Ministry of Finance, published in April 1951. This may help the reader critically to evaluate the information thrown up by the population census of 1951. In this connexion one can do nothing better than quote *in extenso* from an article

called "Problems of National Income Estimation in ECAFE countries" published in the Economic Bulletin for Asia and the Far East for the first Quarter of 1951 (Vol. II, No. 1, August 1951) where, after discussing how a framework of such 'social accounts' was attempted by the League of Nations in 1945 and the follow-up work done in Indonesia and India, "where, for lack of estimates, alphabetical symbols have been used to denote important aggregates such as current consumer expenditure, depreciation allowance, private savings and capital formation", the articles proceeds to explain the "dualistic nature of Asian economies" in the following words :

> The Asian economy is primarily a rura' economy. Agriculture, the chief occupation, is pursued primarily as a means of subsistence. The cultivation of a piece of land is conceived first to serve the needs of the producer and his family. The crafts—blacksmithing, carpentry, pottery and so on—exist to cater to local needs. A large portion of the "economic" transactions in the village are barter transactions governed by tradition. The productive units of the village are plots of soil and 'households'. The services of the peasant's wife and other member of the family are almost as important as his own. The surplus over the amount consumed in the village—usually a smaller portion of the produce, except where cash crops such as cotton, jute, and oilseeds are cultivated to a significant extent—is sold for money to the town merchants through various systems of marketing.
>
> Towns, on the other hand, are productive units and exchange centres, catering to a larger market outside their limits. The larger towns or cities in Asia display the characteristics of the western economies—factories, shopping centres, overcrowding,—while the smaller towns serve as intermediaries between larger cities and the rural areas. Their economy is a monetary economy. They depend for their supplies of food on the villages and in return supply manufactured products to the villages. The household is mostly a consumption unit, though some crafts and retail trading are pursued by the members. The towns and cities are also in contact with the outside world and serve as intermediaries for the wider sale of the surplus of the villages and procure for the villages imports consisting mainly of amenities for those who can afford them.
>
> The national economies of Asia are thus more or less dualistic economies: village economies and town economies. It is not a differentiation merely between two sectors of an integrated economy, as would be the case if a similar distinction were made in the West. It is a distinction between two different economies, with limited points of contact between them. The need for making this distinction in national income estimates is imperative.

399. The article observes that in addition to preparing the estimates separately for rural economies it is desirable to explore the points of contact between the rural and urban economies. This, it says, implies that the framework of national accounts should provide for a statement of the balance of payments of the villages, adding that this would be useful in showing the flow of money income between the rural and urban areas especially during a period of industrialisation.

> The receipts of the villages primarily consist of the value of sales of village products. This consists of the surplus above local consumption needs in respect of food crops and practically all commercial or cash crops such as cotton, jute, oilseeds, etc., livestock and handicraft products, including the cost of processing in the rural households and transportation to town handled by the villagers. In addition the villages receive remittances from their earnings made by village residents working in the urban areas. This is a peculiar characteristic of the Asian economies. In Asia, unlike in the west, urban industry except in a few of the larger cities does not depend wholly for its labour supply on an urban proletariat that has left the country for ever and struck roots in the urban centres. The labour is still rooted in the country; when unemployed or after a few years of labour, many of the unskilled workers return to their villages. This applies even to a significant part of the middle class population of the towns. Many shopkeepers, teachers and government servants, on retirement, look forward to building a house for residence (if they have none) in the village for the remaining years of their life. The villages, therefore, receive capital transfers in addition to current earnings. The outgoings of the villages, on the other hand, are taxation (primarily land revenue) of the local and/or Central Governments, rent payments to absentee landlords purchases of products like clothing, refined

sugar, kerosine, household utensils, gold, etc., (either domestically produced or imported and in either case obtained through urban distributive channels), and expenditure on amenities when the villager visits the towns.

Adequate information, making it possible to compile such a balance of payments for the rural economy, is not available from any source. There have been a few attempts in village surveys to present this information. But the information obtained is not comprehensive, and the studies are too scattered over time and space to be useful for the compilation of an aggregate rural balance of payments.

400. The article discusses the scope of the Indian National Sample Survey and goes on to advocate a measurement of rural and urban product in real terms.

The need to evaluate separately the contribution of rural and urban economies to the national product requires attention to be given to the problems of securing their comparability. National product estimates as they are now compiled in value terms do not adequately fulfil this requirement, as the unit of money possesses different values in towns and villages. A bushel of wheat consumed by a farmer, for instance, is given a lower value than that consumed by a town labourer. Prices of foodgrains, housing and local handicraft products are often much lower in value than in towns, and so are incomes. Factory products, or unposted goods obtained through the towns are, on the other hand, more expensive in the villages than in the towns. On the whole, estimates of national product or national income tend to represent lower money values for the rural than for the urban economy even for the same goods and services.

It is necessary to reconsider the desirability of adding up urban and rural money values to construct national income estimates without making any prior adjustments. The item of rent in a national income estimate for instance, is an unadjusted total of town rents and village rents—two entirely disparate units. This limits the usefulness of such estimates as an indicator of changes in living standards.

401. The above extracts help us to appreciate clearly why under Indian conditions it is difficult to obtain a fairly accurate classification of the population into self-supporting, earning dependant, and non-earning dependant. In the first place the very nature of Indian economy makes a close enough definition of these categories—definitions that can be contained strictly within a uniform and universally comprehensible set of illustrations for the benefit of enumerators throughout India—well nigh impossible. But since the respondent was taken at his word and left to decide his own status variable results were obtained from area to area according to the standards prevailing in each state. This will be evident from the variety of percentages received from different states.

402. It has been argued that it may be possible to estimate the error that may be attributed to the subjective factor. But it is difficult to do so. The instructions to the enumerator ran as follows: '

The share of the income attributable to a person is what the head of the household (or whoever is the managing member) deems it to be. No attempt should be made to make a detailed calculation of this share. All that has to be ascertained is whether *in the opinion of the head of the household or managing member* (the italics are mine, A. M.) the member concerned is entitled to a share which would be sufficient to cover the cost of his own maintenance.

If the answer is 'yes', he is 'self supporting'; if the answer is 'no', he is an 'earning dependant'.

The considerations are exactly the same whether the individual is a male or a female, an adult or a non-adult.

403. The anxiety to secure this threefold classification of economically active, semi-active and passive persons may have affected an objective assessment of all three. Nevertheless, it gives a faithful story of what the population actually thinks of itself in terms of self-sufficiency and also defines pretty clearly the twilight zone between self-sufficiency and dependence. But it is probable that the non-earning to earning dependant ratio was more seriously disturbed than the self-supporting to earning one. This is about all that can be said of the following Statement I.136.

STATEMENT I.136

Distribution of 1,000 persons as self-supporting persons, non-earning dependants and earning dependants in the agricultural and non-agricultural classes in the principal states of India, 1951

State	All Agricultural Classes — Distribution of 1,000 persons: Self supporting persons	Non-earning dependants	Earning dependants	All Non-agricultural Classes — Distribution of 1,000 persons: Self supporting persons	Non-earning dependants	Earning dependants
India	**287**	**596**	**117**	**313**	**628**	**59**
Uttar Pradesh	297	561	142	327	616	57
Bihar	319	640	41	295	663	42
West Bengal	260	698	42	388	593	19
Madras	258	691	51	270	689	41
Bombay	246	546	208	314	614	72
Madhya Pradesh	300	411	289	312	544	144
Punjab	268	584	148	266	648	86
Orissa	278	623	99	316	597	87
Assam	245	585	170	410	524	66
Rajasthan	393	450	157	316	607	77
Travancore-Cochin	268	656	76	307	617	76
Mysore	253	715	32	277	685	38
Vindhya Pradesh	311	535	154	342	563	95
Madhya Bharat	319	569	112	311	634	55

404. Statement I.137 shows in three parts, (*a*) for the total population, (*b*) for the rural population, and (*c*) for the urban population the percentages of self-supporting persons, earning dependants, and non-earning dependants classified by each of the eight main livelihood classes in West Bengal.

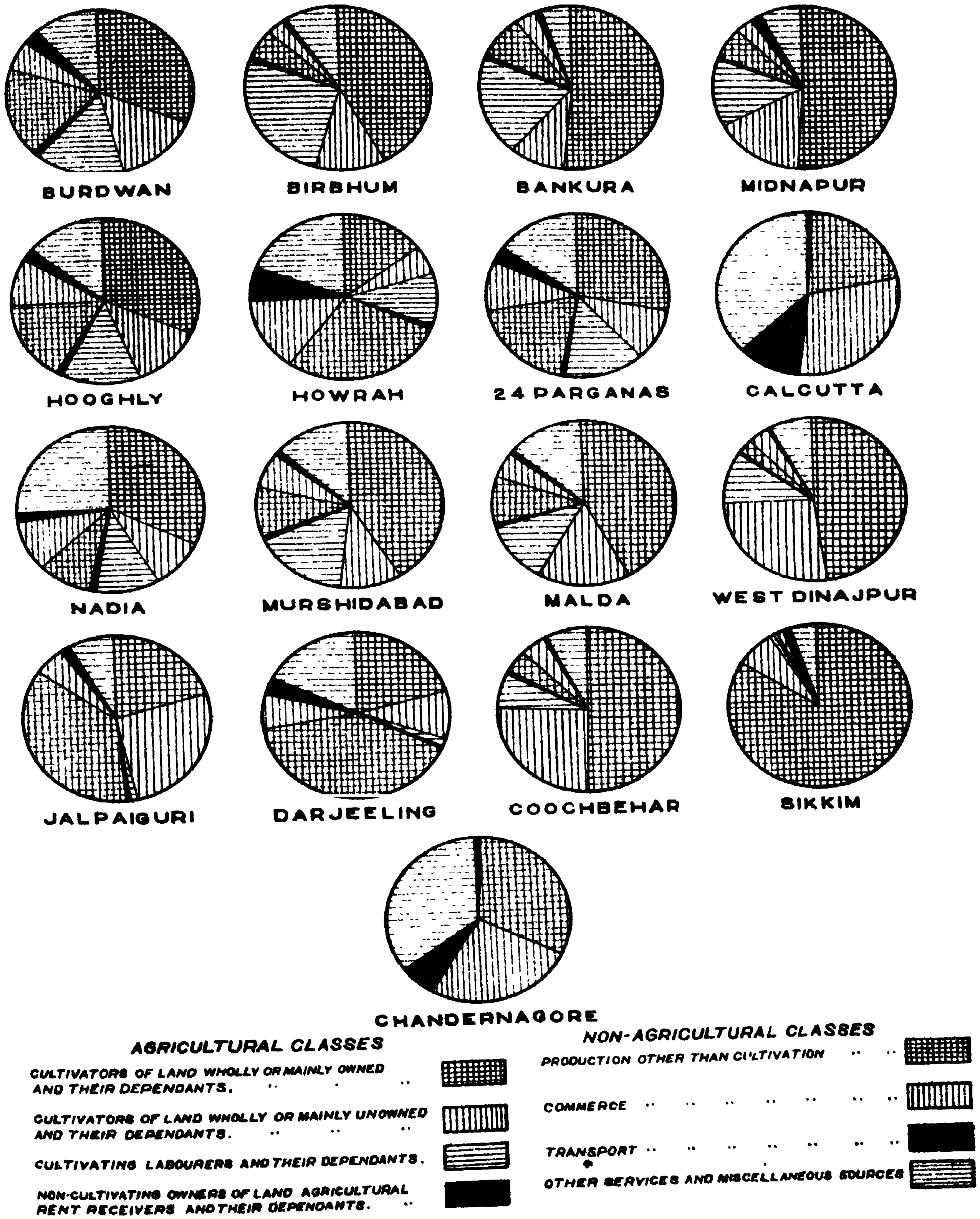
STATEMENT I.137

Percentage of self-supporting persons, non-earning dependants and earning dependants in each of the eight main livelihood classes in the total, rural, and urban populations of West Bengal, 1951

(a)* Total Population

Livelihood Classes	Percentage of total population	Percentage of col. 2 who are — Self supporting	Non-earning dependants	Earning dependants
1	2	3	4	5
I	32·3	23·3	73·0	3·7
II	12·0	25·1	69·9	5·0
III	12·3	34·1	61·3	4·6
IV	0·6	26·1	71·6	2·3
V	15·4	43·7	54·2	2·1
VI	9·3	33·5	65·0	1·5
VII	3·0	43·1	55·7	1·2
VIII	15·1	36·3	61·8	1·9
Total Agricultural Classes	57·2	26·0	69·8	4·2
Total Non-agricultural Classes	42·8	38·8	59·3	1·9
All Classes	100·0	31·5	65·3	3·2

LIVELIHOOD
MAP OF
WEST BENGAL



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STATEMENT I.137—concld.

(b) Rural Population

Livelihood Classes	Percentage of total population	Percentage of col. 2 who are Self-supporting	Non-earning dependants	Earning dependants
1	2	3	4	5
I	42·4	23·3	73·0	3·7
II	15·7	25·1	69·8	5·1
III	16·0	34·0	61·3	4·7
IV	0·6	27·6	69·8	2·6
V	11·0	42·9	54·3	2·8
VI	4·4	31·1	66·7	2·2
VII	1·0	33·7	64·2	2·1
VIII	8·9	33·4	63·8	2·8
Total Agricultural Classes	74·7	26·0	69·8	4·2
Total Non-agricultural Classes	25·3	37·1	60·2	2·7
All Classes	100·0	28·8	67·4	3·8

(c) Urban Population

Livelihood Classes	Percentage of total population	Percentage of col. 2 who are Self-supporting	Non-earning dependants	Earning dependants
1	2	3	4	5
I	1·8	26·2	71·1	2·7
II	0·7	20·0	77·5	2·5
III	1·0	36·4	60·3	3·3
IV	0·7	22·7	75·5	1·8
V	28·7	44·7	54·0	1·3
VI	24·2	34·8	64·1	1·1
VII	9·3	46·1	53·0	0·9
VIII	33·6	38·6	60·3	1·1
Total Agricultural Classes	4·2	26·9	70·5	2·6
Total Non-agricultural Classes	95·8	40·2	58·6	1·2
All Classes	100·0	39·6	59·2	1·2

405. More detail for these categories in the agricultural livelihoods will be found in Subsidiary Tables appertaining to Chapters IV and V. But none of them are of any particular interest that can be usefully discussed here.

406. The results of the classification into employers, employees and independent workers in non-agricultural occupations were not uniformly happy. The proportions may be seen in Subsidiary Table V.1 in Part IC of this Report. In a predominantly subsistence economy where even industry in the villages is really an adjunct to agriculture it is certainly worthwhile to ascertain the extent of 'own account' work as well as of 'proprietors and wage earners'. The model instructions were: "(A person) would be an employer even if he employed only one person provided that person was regularly employed and derived his principal means of livelihood from such employment. Thus a doctor who keeps a compounder to run his clinic and a lawyer who employs a clerk are employers. A tenant or a zemindar

who does not cultivate himself but employs labourers is an employer". The following Statement I.138 shows the relevant portion of Subsidiary Table V.1 for those States which have favoured me with a copy.

STATEMENT I.138

Number per 10,000 self-supporting persons of all non-agricultural classes in several states of India, 1951

States	Number per 10,000 self-supporting persons of all Non-agricultural Classes who are			
	Employers	Employees	Independent workers	Others
West Bengal	239	6,122	3,363	276
Orissa	118	2,702	6,766	414
Madras	557	4,514	4,732	197
Madhya Pradesh	304	4,565	4,837	294
Travancore-Cochin	284	5,207	3,908	601

407. This is the first time that status in employment has been attempted in the Indian Census. There are no previous figures to judge recent figures by. As in the case of self-supporting persons and earning and non-earning dependants the employer-independent worker ratio may have been disturbed to a certain extent, and consequently the employer-employee and employee-independent worker ratios also.

408. There was another difficulty. No census of employment or unemployment having been attempted, the test of self-support was that 'income' should be 'regular' and non-casual. The model supplementary instructions went on to explain. "It is not intended to be confined only to income derived from seasonal employment. What it does exclude is individual income accruing casually and not constituting a source of income which is regularly depended upon." This introduces a subjective element and it is fortunate that the broad ratios of self-supporting persons and non-earning dependants between state and state, although too wide in themselves to be justified by objective conditions, are not wider than they might have been.

409. It will be readily appreciated that the questions whether a man is self-supporting and an employer are 'prestige' questions intimately bound up with a man's self-respect and vanity. Unless this is made contingent on a person's employment or unemployment a large bias enters in subjective personal assessments. It is feared that the results of the last census shows traces of this bias in both the returns of self-supporting persons and employers. This was unavoidable as a citizen was at liberty to describe himself as self-supporting or as an employer even on the strength of seasonal employment. The model instructions are based on the presumption that the average enumerator will rely on local knowledge and a large fund of his own common sense. This is a big presumption to make on that rare latter commodity. Besides, what is greatly more important is that what is common sense in ordinary language and prized as a virtue in daily life is more often than not bias in statistical language and feared like the plague. And, indeed, a person's preconceived notions can work havoc on a field of objective inquiry. Nevertheless, as has already been noted, the threefold classification of employment introduced a valuable concept into the Indian census and the desideratum in the late census can be provided for in the next. The

means this threefold classification provides for measuring tensions, shifts and changes in the pattern of rural and industrial production, especially in those zones where rural and urban areas interpenetrate each other as well as in predominantly rural and urban areas, is of the greatest value, and will provide a great deal of exciting material to the student of the Indian Census.

410. The order in which the questions on economic status and livelihood was asked also introduced bias. Questions 9, 10 and 11 were in the following order:

Question 9 was in two parts—

(I) Are you a self-supporting person, a non-earning dependant, or an earning dependant?

(II) Are you ordinarilv—

(*a*) an employer?
(*b*) an employee?
(*c*) an independent worker?

Question 10—If you are a self-supporting person state your principal means of livelihood. If you are a non-earning dependant or an earning dependant state the principal means of livelihood of the person on whom you depend.

Question 11—If you are a self-supporting person and have a secondary or subsidiary means of livelihood state what it is. If you are a non-earning dependant this question does not apply to you. If you are an earning dependant, state your own means of part earning.

411. This was not a particularly happy order of putting the questions but there was no choice as the enumeration slips had already been printed before the questionnaire and the order of questions were finalised. The questions were therefore arranged in the order in which they might fit the spaces in the slip, and not in the order in which they could be more logical.

412. The questions on the principal and secondary means of livelihood might bring varying results. In every case a mental translation of the earnings from an occupation into money value was required before the citizen could declare his principal or secondary means of livelihood. As the enumerator was not empowered to ask about a person's income it may be imagined how subjective and choosy this mental calculation would be. Besides, here again the question of prestige and self-interest entered. It is a universal human frailty that a person wishes to appear in a better light than circumstances warrant. Every person has an individual scale of values so far as occupations are concerned, and cases are by no means infrequent where, for example, a very successful business tycoon would pretend to a musician's occupation simply because one of his footling five-finger exercises has been accepted for beginners at a local academy. A patently inept example has been chosen if only to open up a vista of the innumeral preferences a person with more than one means of livelihood, or even hobbies which earn him little money although he may like to believe it does, may be faced with in declaring his principal means of livelihood. As will be presently seen this was by no means a small factor in the returns of agricultural livelihoods. Further, the census being a governmental inquiry to be processed in a government office, and the Census Act not yet having laid down that no particular of an individual may be divulged from the Census Department (this is different from the stipulation of the law that an enumerator may not divulge any personal information), it cannot altogether be ruled out that the ordinary citizen regards, if erroneously, the census record as another 'evidence' of what he is trying to cover up the traces, or of the supposed right he is fighting for or has just acquired. Consequently, in furtherance of this object the citizen may anticipate his economic status or livelihood or substitute what he is by what he wishes to be.

413. This, therefore, leads to three conclusions: first, that in a small percentage of cases the principal and secondary means of livelihood of self-supporting persons may be interchanged, the exact extent or nature of which it is not possible to judge; secondly, the declaration of the principal means of livelihood itself is liable to error depending on what the citizen was out to establish for himself from a tangled mass of prestige, self-interest and future prospects. Thirdly, the return of the description of the means of earning of an earning dependant may have been suppressed in many cases by a suspicious or self-asserting head of the family who does not like to acknowledge that anybody but himself in the family earns anything at all. For, it is an integral feature of the monolithic economy of Indian families where, in the vast majority of cases, only the head of the family is admittedly as well as actually the " breadwinner ", that he who earns rules the roost. Even a part earner is a potential rival to the family seat of honour.

414. This brings us to an assessment of the results of the livelihood pattern as revealed by the 1951 Census. The agricultural livelihoods are considered in the first instance.

415. It is important to make a note in the beginning that, unlike the sorting into non-agricultural livelihood divisions, subdivisions and groups under the Indian Census Economic Classification Scheme made by a centrally supervised staff, trained and drilled into the knowledge of making these distinctions, the responsibility of placing the population into the four main agricultural classes was relegated to the enumerator on the spot. The underlying assumption was that the rural enumerator, invariably belonging to his area of enumeration, was expected to possess intimate knowledge of every household and would accordingly be in a position to make a correct judgement of the particular agricultural livelihood to which the respondent *did* belong. The model instructions ran as follows:

> Four simple contractions have been provided which will cover most cases where the livelihood is dependent on agriculture—write 1 for a person who cultivates land owned by him; 2 for a person who cultivates land owned by another person; 3 for a person who is employed as a labourer by another person who cultivates land; 4 for a person who receives rent in cash or kind in respect of land which is cultivated by another person.

416. Livelihood Class III gave the least cause for confusion but here again the prestige motive must have played its part. It is plain that those among them who did a little sharecropping preferred to be recorded as sharecroppers to being called agricultural labourers, and those who " owned " a little land on rent preferred to call themselves tenants in Livelihood Class I. Socially as well as from the point of view of rights, the tenant is on the highest rung of the ladder so far as tillers of the soil go, while the sharecropper is on the middle rung, and the labourer on the lowest rung. From the point of view of tenancy rights also the grading holds and any person would eagerly snatch at the slightest piece of " evidence ", either to reestablish himself or to work his way up to the sanctum of the local Tenancy Act. Livelihood Class IV as defined in the model instructions is ambiguous. It can mean either the landlord or the tenant or both. The tenant (Livelihood Class I) may not cultivate land for which he receives a share of the crop from his sharecropper who cultivates his land for him. On the other hand in districts where a share of the produce or crop rent like *sanja* rent, *khut khamar, bhag jama, utbandi, hal hasila* or *fasli jama* prevail, which involves payment of rent in cash or kind or in mixed cash and kind, the landlord may easily pass as a tenant or a tenant as a landlord whichever is convenient. Thus the definition is interchangeable. That a number of landlords, believing that discretion is the better part of valour and the vanity of being called the landed gentry does

not pay in a degenerate world, lay low under this ambiguity and returned themselves as Livelihood Class I seems probable.

417. The Registrar General desired that the instructions should be modified to conform to local tenancy legislation. Livelihood Class I was equated with tenants or ryots, korfas, etc., Livelihood Class II with sharecroppers or adhiars, bhagdars, bargadars, etc., Livelihood Class III with agricultural labourers or Munish, Jan, Kishan, etc., and Livelihood Class IV with landlords, or zemindars, tenure holders, and holders of similar top or middle interests.

418. Agricultural livelihoods in the Indian Census have always been based on contemporary tenancy legislation or agrarian movement. In this respect census classifications have been realistic, in the sense that they have tried to articulate agrarian trends and aspirations. In 1901 agricultural livelihoods were classified into landholders and tenants subdivided into (*a*) rent-receivers, (*b*) rent payers, (*c*) farm servants, and (*d*) field labourers. In 1911 the classification was 1. Income from rent of agricultural land, 2. Ordinary cultivators. 3. Agents, managers of landed estates. clerks, rent collectors, etc., 4. Farm servants and field labourers. In 1921 the first three classes of 1911 were retained while the fourth class was split into 4. Farm servants and 5. Field labourers. Classification in 1931 was elaborate: 1. Non-cultivating proprietors taking rent in money or kind, 2. Estate agents and managers of private owners, 3. Estate agents and managers of Government, 4. Rent collectors, clerks, etc., 5. Cultivating owners, 6. Tenant cultivators, 7. Agricultural labourers. Agriculture in 1941 had the following groups: Group 1 represented landowners who lived on rent from land but did not cultivate themselves ; Group 2 represented Bhagdars and cultivators of similar status, the definition being a cultivator, who supplies his own plough, and cultivates land not his own, receiving in payment a share of the crop. Groups 6-7-9 represented mainly the class of tenant cultivator known as ryots and korfa-ryots and also included persons holding zemindari rights who cultivated their land themselves, without the intervention of tenants. Group 8 represented all classes of agricultural labourers.

419. The Bengal Tenancy Act confers valuable rights on ryots who are supposed to comprise Livelihood Class I of the 1951 Census. Ryots are composed of three classes: (*a*) ryots holding at fixed rates, which expression means ryots or settled ryots; (*b*) occupancy-ryots, that is to say, ryots having a right of occupancy in the land held by them. and (*c*) non-occupancy ryots, that is to say, ryots not having such a right of occupancy. This is from section 4 of the Bengal Tenancy Act and explains the large gravitational pull this class has on all other agricultural classes.

420. Tenant in the Bengal Tenancy Act " means a person who holds land under another person and is, or but for a special contract would be, liable to pay rent for that land to that person ". Section 4 (*a*) of the Bengal Tenancy (Amendment) Act of 1928 (Bengal Act IV of 1928) inserted an important proviso, and by recording the ineligibility of sharecroppers to be recognised as tenants articulated the orthodox resistance to the modern agrarian movement which consists in the clamour for recognition and rights of sharecroppers and landless agricultural labourers. The proviso to section 3 (17) of the Bengal Tenancy Act runs as follows:

> Provided that a person who under the system generally known as "*adhi*", "*barga*" or "*bhag*", cultivates the land of another person on condition of delivering a share of the produce to that person, is not a tenant, unless—
>
> (i) Such person has been expressly admitted to be a tenant by his landlord in any document executed by him or executed in his favour and accepted by him ; or
>
> (ii) he has been or is held by a Civil Court to be a tenant.

421. The same Amendment Act of 1928 sharpened the definition of the landless

agricultural labourer by substituting the phrase "hired servants" by "servants or labourers" in the definition of a ryot in section 5 (2) of the Bengal Tenancy Act. The amended definition of a ryot stood as follows:

> (2) Ryot means primarily a person who has acquired a right to hold land for the purpose of cultivating it himself, or by members of his family *or by servants or* includes also the successors in interest of *labourers* or with the aid of partners, and persons who have acquired such a right.
>
> (3) A person shall not be deemed to be a ryot unless he holds land either immediately under a proprietor or immediately under a tenure-holder.

422. The sharecropper and agricultural labourer were thus completely precluded from becoming ryots and the Act of 1923 in fact helped to sharpen agrarian unrest and to bring the problem of landless agriculturists to the forefront. It also brought out in sharp relief the problem of small and uneconomic holdings as the biggest problem of Indian agriculture.

423. Livelihood Class IV constitutes what in the Bengal Tenancy Act is defined as proprietor and tenure-holder.

424. The West Bengal Government promulgated an Ordinance No. X in 1949 called the West Bengal *Bargadars* Ordinance which sought to give protection to *bargadars* and define their rights in only those areas which the government would by special order notify. This Ordinance was made into an Act, called the West Bengal *Bargadars* Act, in 1950 (West Bengal Act II of 1950) which laid down the rights of *Bargadars and owners of land inter se.* This led to a fruitful controversy and inasmuch as it failed to fulfil the aspirations of the *bargadar*, the latter, on the slightest pretext, jumped to call himself a tenant, and insofar as it failed to satisfy the agricultural labourer, the latter aspired to be recognised as *bargadar,* if not tenant. But the overriding ambition to be called a tenant remained. Thus, a *bargadar* or an agricultural labourer who enjoyed even a few decimal acres of land in tenancy insisted on being recognised as a tenant even if his main income lay in sharecropping or labouring for others. On the other hand the scare of *zamindari* abolition and the hope that in the event of it maturing a proprietor would be allowed to cling to those plots which he could show as his own, *nij* or *khas jote,* drove many a proprietor to declare himself under livelihood I although his main income lay in the collection of rents. It is probable that many small proprietors, widows or minors enjoying modest proprietary rights in land and living on rents, have returned themselves as belonging to Livelihood Class I if for no other reason than that they fit into the supplementary model instructions for that category. Livelihood Class III gave the least cause for confusion but here again the prestige motive must have played its part. It is plain that those among them who did a little sharecropping preferred to be recorded as sharecroppers to being called agricultural labourers, and those who "owned" a little land on rent preferred to call themselves tenants in Livelihood Class I. Socially as well as from the point of view of rights, the tenant is on the highest rung of the ladder so far as tillers of the soil go, while the sharecropper is on the middle rung, and the labourer on the lowest. From the point of view of tenancy rights also the grading holds and any person would eagerly snatch at the slightest piece of "evidence", either to reestablish himself or to work his way up to the sanctum of the local Tenancy Act. Livelihood Class IV as defined in the model instructions can mean either the landlord or the tenant or both. The tenant (Livelihood Class I) may not cultivate land for which he receives a share of the crop from his sharecropper who cultivates his land for him. On the other hand in districts where a share of the produce or crop rent like *sanja* rent, *khut khamar, bhag jama, utbandi, hal hasila* or *fasli jama*

prevail, which involves payment of rent in cash or kind or in mixed cash and kind, the landlord may easily pass as a tenant or a tenant as a landlord whichever is convenient. Thus the definition is interchangeable. That a number of landlords, believing that discretion is the better part of valour and the vanity of being called the landed gentry does not pay in a degenerate world, lay low under this ambiguity and returned themselves as Livelihood Class I seems probable.

425. The census, however, brings out the distribution of the population into agricultural and non-agricultural classes fairly accurately and the following Statement I.139 shows how an increasing rural density and agricultural overcrowding is at last on the point of drawing more and more people away from the land in at least several districts.

STATEMENT I.139

Rural Density per square mile and proportion of population supported by agriculture per 1,000 of general population, 1901-21 and 1951

State and District	1951		1921		1911		1901	
	Rural Density per sq. mile	Proportion	Rural Density per sq. mile	Proportion	Rural Density per sq. mile	Proportion	Rural Density per sq. mile	Proportion
West Bengal	**610**	**572**	**456**	**683**	**474**	**671**	**452**	**607**
Burdwan Division	*681*	*674*	*529*	*718*	*563*	*713*	*552*	*634*
Burdwan	700	626	502	680	540	671	541	585
Birbhum	577	814	479	764	539	762	520	681
Bankura	467	818	366	770	412	738	405	602
Midnapur	507	818	494	840	523	812	517	767
Hooghly	1,030	586	767	613	799	641	779	528
Howrah	2,004	314	1,433	466	1,365	491	1,241	406
Presidency Division	*550*	*490*	*394*	*650*	*399*	*629*	*368*	*577*
24-Parganas	591	534	388	674	370	690	333	638
Calcutta	..	9	..	45	..	28	..	23
Nadia	633	534	427	672	471	660	469	550
Murshidabad	773	692	556	824	617	707	609	570
Malda	650	712	482	765	490	658	422	681
West Dinajpur	492	852	354	912	368	911	329	871
Jalpaiguri	359	487	287	714	275	720	226	747
Darjeeling	296	321	214	423	203	436	192	418
Cooch Behar	471	835	436	886	438	873	419	864
Chandernagore	..	7	..	..	..	..	..	..
Sikkim	**50**	**916**	**30**	**933**	**32**	**944**	**21**	**922**

426. It is a point of the greatest interest how in the industrial districts of Hooghly, Howrah and 24-Parganas and even Burdwan (where the position between 1911 and 1921 may be said to have remained practically stationary, a growth from 671 to 680 being negligible), the peak of agricultural crowding seems to have been reached as early as 1911 since when it has been gradually falling away, driving more people to non-agricultural pursuits. It is also interesting to note how in all other districts, except in Birbhum and Bankura where cultivation is a more difficult problem than elsewhere, agricultural crowding reached its peak ten years later, that is, in 1921 since when

it has fallen considerably in 1951. Were figures for 1931 and 1941 available and were it permissible to make an inference, they would probably indicate the course of this decline in graduated steps. In any case, the decline is marked enough to be significant and shows how agriculture is steadily heading for a crisis. The stage has already been reached when agriculture cannot entertain larger populations but must drive away some of the surplus. But as has been shown in Chapters III and V the population driven away to towns by agricultural overcrowding leads a pillar-to-post existence and aggravates sub-marginal living. The two districts Birbhum and Bankura are the only ones where the rural density of population per square mile has remained at a very low level over the last fifty years, and where the infertile soil in certain parts drives its *sparse* population to an extension of cultivation. They are the only two districts in the south with comparatively thin populations and large blocks of uncultivated areas which explains the continued growth in their agricultural population ratios. It is also significant that the rate of growth of this population has been almost uniform in these two districts which are in so many respects so similar in geography and ecology. Another reason is the decay of the iron smelting, and coal and stone quarrying industries in Birbhum and the decay of its lac industry, while Bankura has lost a great deal of its cottage industries throwing the population so displaced back on the soil.

427. It deserves to be noted that even in West Bengal which holds the record in India for its large non-agricultural population. as many as five districts—Birbhum, Bankura, Midnapur, West Dinajpur and Cooch Behar—have more than 80 per cent. of their populations in agricultural livelihoods while three more—Burdwan, Murshidabad and Malda—have between 63 and 71 per cent. of their populations dependent on agriculture. It is virtually only the two industrial districts of Howrah and Calcutta and the plantation districts of Jalpaiguri and Darjeeling that have larger proportions of non-agricultural populations. Thus a great deal more than half of West Bengal is overwhelmingly rural while only selected zones have developed on industrial or plantation economies. If it is true that rural and urban economies in India have only limited points of contact, as indeed it is, West Bengal is then in the midst of a great dichotomy which has begun to be felt more sharply than ever since 1921 and contributed much to the prevailing restlessness and malaise. A stage has been reached when a clear formulation of how much the soil can support through improved management has to be made and a readjustment deliberately effected between agriculture and industry. Conditions already indicate a shift of the centre of gravity towards industry which should be assisted into a new position if the social structure is to be prevented from toppling over. It may sound facetious but the fact remains that many other Indian states are not far behind West Bengal which is already at the cross-roads.

428. Mention has already been made of the difficulties encountered in tabulating non-agricultural occupations. It had been dinned into the ears of the enumerating agency in time and out of it, that since West Bengal was a State with the greatest variety of non-agricultural occupations, and since history had more or less decided in the last one hundred years that the State with her very high density and immigration ratio must eventually tread the path of industry and commerce, if only with her domestic agrarian situation better sorted out with the help of land reform and improved land management, a very full inventory of non-agricultural occupations was the supreme duty of every enumerator towards his country.

Indeed the returns proved that the instruction was fully heeded and information on 99 out of a hundred slips was quite full on this point. A trained sorting staff also did justice to the task and if it was the ambition in this census to make a success of the Indian Census Economic Classification Scheme, the Tabulation Offices in the State might take just pride in their performance.

429. The difficulties if any that arose lay in disentangling the compromise made between the Establishment approach of the International Standard Industrial Classification Scheme and the Individual approach of the Indian Census Economic Classification Scheme. The problems that arose from time to time will be discussed in a later chapter and comparisons made with figures of previous censuses. It is unnecessary to repeat here the significance of Subsidiary Table I.8 already elaborated in the section on migration.

430. One point, however, remains to be stressed and that is the large space occupied by particular groups of communities in West Bengal in agricultural livelihoods to their comparative exclusion from non-agricultural ones. This is a reference to the livelihood patterns of scheduled castes and scheduled tribes in the State a brief discussion of which will serve to focus more sharply the nature of the present crisis in agricultural livelihoods in West Bengal. The following Statement I.140 shows the populations of scheduled castes and tribes in the agricultural livelihood classes and their percentages to the total agricultural population in 1951.

STATEMENT I.140

Population and percentages of scheduled castes and tribes in agricultural classes to population in agricultural classes, 1951 (thousands)

State and District	Population engaged in all agricultural classes (1)	Population of scheduled castes in agricultural classes (2)	Percentage of column (2) to column (1) (3)	Population of scheduled tribes in agricultural classes (4)	Percenta of colum (4) to co (1) (5)
West Bengal	**14,195.1**	**3,264.9**	**23·0**	**921.2**	**6·5**
Burdwan	1,372·3	379·4	27·6	95·0	6·9
Birbhum	868·3	254·9	29·4	72·0	8·4
Bankura	1,078·4	344·1	31·9	134·6	12·5
Midnapur	2,746·2	401·1	14·6	202·0	7·4
Hooghly	910·9	235·0	25·8	50·4	5·5
Howrah	505·9	99·9	19·7	2·3	0·5
24-Parganas	2,461·8	693·3	28·2	51·4	2·1
Calcutta	22·7	0·8	3·5	..	..
Nadia	611·8	103·9	17·0	8·7	1·4
Murshidabad	1,186·5	113·9	9·6	18·5	1·6
Malda	667·8	96·7	14·5	73·2	11·0
West Dinajpur	613·7	102·9	16·8	117·5	19·1
Jalpaiguri	445·5	170·1	38·2	66·4	14·9
Darjeeling	142·8	17·5	12·3	25·1	17·6
Cooch Behar	560·5	251·4	44·9	2·3	0·4

431. The crisis lies not in the proportion of scheduled castes and scheduled tribes among the agricultural classes but in the abjectly low standard of living or rather the absence of any standard whatsoever among them especially among the tribes. It is significant that together they constitute 40·8 per cent. of the total population in the sharecropping class and 45·8 per cent. in the agricultural landless working class. The following Statement I.141 shows the distribution of the general population and scheduled castes and scheduled tribes in all agricultural classes in West Bengal in 1951.

STATEMENT I.141

Distribution of the general population and scheduled castes and scheduled tribes in all agricultural classes in West Bengal, 1951

	Livelihood Class I	Livelihood Class II	Livelihood Class III	Livelihood Class IV
1 General population in agricultural classes	8,023,757	2,980,402	3,041,881	149,121
2 Population of scheduled castes	1,237,879	874,944	1,141,956	10,161
3 Population of scheduled tribes	327,353	342,020	250,912	936
4 Population in scheduled castes and scheduled tribes as percentage of total population in each class	19·5	40·8	45·8	7·4

432. The abjectly low standard of living among scheduled castes and scheduled tribes engaged in agriculture makes it possible for them to scratch a living out of a fraction of the produce of the soil on a system of sharecropping or wages in kind. It leads to much uneconomic cultivation and much unbelievable poverty, disease, bad health, high birth and death rates. The engagement of a large population in agriculture having no standard of living whatsoever means the absence of ambition and the lack of a spirit of enterprise by which only improvements in the soil and agricultural yield can be attempted. The desire to improve one's condition is the motive force of a desire to improve one's wealth by increased production. The absence of this motive force explains the peculiarly inelastic state of our agriculture, our food crops and also to a certain extent, of our money crops. In the years of good harvest prices fall and less is sown in the next season because less is sold and more is left behind in the granary. In a year of lean harvest prices rise and a little more is sown in the next season until prices stabilise to rob initiative again. This is a vicious circle so far as food crops are concerned. But the cash crops fare no better either. In any case there can be no appreciable difference between a heavy yield and a poor yield for a sharecropper or wages-in-kind earner who, after all, gets only a fraction of the crop and cannot see much point in working harder or managing another's land more efficiently. This is the economic or production implication of the presence of scheduled castes and scheduled tribes in the agricultural sector which deepens the crisis. There is another side to it noticeable in those agricultural areas of Burdwan and Birbhum which have been improved by the excavation of irrigation canals. As soon as irrigation improves the productivity of the soil, the ryot is invaded by a number of scheduled caste and scheduled tribe applicants clamouring to till the land for him on a sharecropping or even wages in kind basis. The ryot having discovered that the yield of his plot has improved, and having little incentive to improve his condition beyond what it is (standards depend on surroundings and emulation, and where there are no standards it is

difficult to imagine new ones and aspire after them), reckons the cost of cultivation on the present improved yield and decides that he would have to spend almost as much on hired labour as he would be giving away in a share of the crop to the applicant and finds that the balance of convenience, or of laziness whatever one may prefer to call it, lies in going shares with the latter. It does not occur to him that soon after a plot of land is turned over to a sharecropper or wages-in-kind earner the productivity declines and his share gets less and less. He puts it to his inability to drive the other man hard enough but finds it too much of a trouble to resume cultivation himself. In the meantime the plot of land bears more people per acre and lowers still further the overall standard of living. Such a course is specially facilitated by the entry into the field of scheduled caste and scheduled tribe agriculturists who have poorer standards of living than what is ordinarily imagined. The following Statement I 142 shows the distribution of 10,000 persons of the general, scheduled caste and scheduled tribe populations respectively among the eight main livelihood classes in 1951 in West Bengal.

STATEMENT I.142

Livelihood pattern of 10,000 persons in the general, scheduled caste and scheduled tribe populations among the eight main livelihood classes in West Bengal, 1951

	Livelihood Class I	Livelihood Class II	Livelihood Class III	Livelihood Class IV	Livelihood Class V	Livelihood Class VI	Livelihood Class VII	Livelihood Class VIII
General population	3,234	1,201	1,226	60	1,536	932	305	1,506
Scheduled castes	2,636	1,863	2,431	22	1,444	392	176	1,036
Scheduled tribes	2,809	2,935	2,153	8	1,585	36	50	424

433. Comment on the preponderance of scheduled castes and scheduled tribes in Livelihood Classes II and III is superfluous.

434. Statement I.143 shows the livelihood pattern of 10,000 persons among scheduled castes in the districts of West Bengal in 1951 and Statement I.144 is a similar one for the scheduled tribes.

STATEMENT I.143

Livelihood pattern of 10,000 persons among scheduled castes in the districts of West Bengal, 1951

State and District	Livelihood Classes							
	I	II	III	IV	V	VI	VII	VIII
West Bengal	**2,636**	**1,863**	**2,431**	**22**	**1,444**	**392**	**176**	**1,036**
Burdwan Division	*2,010*	*1,882*	*3,424*	*15*	*1,341*	*307*	*167*	*854*
Burdwan	1,024	2,082	3,365	17	2,213	228	155	916
Birbhum	1,469	1,607	4,935	17	698	118	70	1,086
Bankura	2,328	1,545	4,473	16	879	194	95	470
Midnapur	3,369	2,263	2,658	17	590	341	166	596
Hooghly	2,452	2,219	2,658	11	1,261	359	150	890
Howrah	1,195	1,066	2,238	5	2,573	847	496	1,580
Presidency Division	*3,257*	*1,844*	*1,448*	*28*	*1,545*	*476*	*186*	*1,216*
24-Parganas	3,223	1,396	1,933	34	1,628	500	138	1,148
Calcutta	28	5	1	30	3,060	1,674	1,512	3,690
Nadia	2,625	1,358	1,429	16	1,509	759	208	2,096
Murshidabad	1,619	1,364	2,710	9	2,144	589	95	1,470
Malda	4,097	1,685	1,302	3	1,156	255	50	1,452
West Dinajpur	4,226	2,811	1,298	25	455	206	48	931
Jalpaiguri	3,287	3,764	140	42	2,149	144	96	378
Darjeeling	3,568	2,790	331	35	1,953	347	160	816
Cooch Behar	5,609	3,006	686	30	238	88	30	313

STATEMENT I.144

Livelihood pattern of 10,000 persons among scheduled tribes in the districts of West Bengal, 1951

State and District	Livelihood Classes							
	I	II	III	IV	V	VI	VII	VIII
West Bengal	**2,809**	**2,935**	**2,153**	**8**	**1,585**	**36**	**50**	**424**
Burdwan Division	*3,347*	*2,401*	*3,131*	*3*	*708*	*32*	*38*	*340*
Burdwan	819	3,293	2,950	3	2,415	29	60	431
Birbhum	2,528	3,190	3,461	3	253	4	8	553
Bankura	6,421	1,171	2,145	1	130	21	24	87
Midnapur	3,888	2,113	3,538	6	124	23	30	278
Hooghly	1,333	3,312	4,156	3	606	10	43	537
Howrah	354	1,771	1,448	..	3,248	1,193	437	1,549
Presidency Division	*2,180*	*3,561*	*1,009*	*13*	*2,609*	*40*	*65*	*523*
24-Parganas	3,656	2,554	2,113	10	864	40	145	618
Calcutta	30	..	..	90	270	781	571	8,258
Nadia	3,429	1,226	3,250	1	795	140	167	992
Murshidabad	1,171	3,281	3,459	..	601	157	43	1,288
Malda	2,955	5,264	868	4	42	23	7	837
West Dinajpur	2,676	5,146	1,634	7	50	15	7	465
Jalpaiguri	761	2,651	68	27	6,147	20	96	230
Darjeeling	3,581	1,944	175	6	3,396	141	73	684
Cooch Behar	2,993	5,362	414	..	1,117	34	..	80

435. In illustration of the extent to which scheduled castes and tribes,—populations "inseparably associated with agricultural occupations"—are confined to *barga* cultivation and *Kishani* (wages-in-kind or attached agricultural labour) and cannot work their way upwards to higher rights due to poverty, the following Statement I.145 is abstracted from pp. 71-72 of the Settlement Report of Birbhum (1924-32).

STATEMENT I.145

Comparative statement showing the interests in land of certain castes in police stations Suri, Khayrasol and Dubrajpur of District Birbhum, 1932

Name of Caste	Population according to Census of 1931		Proprietor		Tenure-holder		Raiyats		Under-raiyats	
	No. of interests held	Percentage of interests held	Percentage of interest held	Percentage of area held	Percentage of interest held	Percentage of area held (sublet)	Percentage of interest held	Percentage of area held (sublet)	Percentage of interest held	Percentage of area held (*Khas*)
High Castes—										
Brahmins	11,881	6·48	72·25	75 77	56·73	65·5	15·08	48·63	4·85	7·5
Kayasthas	3,072	1·66	10·66	10 82	6·96	7·87	2·47	3·63	1·21	2·6
Middle Classes—										
Muslims	39,052	21·29	5·35	2·06	15·16	7·88	24·93	9·81	22·53	22·91
Sadgop	17,748	9·68	1·65	·95	7·16	6·37	19·14	10·00	17·14	16·22
Kalu and Teli	5,695	3·05	·14	·12	1·74	·75	4·34	5·48	4·00	5·63
Untouchables—										
Bauri	20,940	11·42	·24	·11	·15	·03	2·01	·15	5·94	2·63
Bagdi	16,754	9·13	..	..	·24	·14	2·37	·25	9·15	5·38
Dom	12,352	6·73	..	..	·06	·002	1·64	·23	4·5	2·01
Hari	5,123	2·80	·1	·09	·08	·01	1·00	·25	2·61	1·5
Mal	3,707	2·02	·05	·003	·02	·003	·62	·05	1·60	2·0
Tribal—										
Santal	7,958	4·34	·04	·0006	·009	..	1·06	·57	1·91	4·18

436. The Settlement Officer, B. B. Mukharji, made the following comment:

> The figures are interesting. They show for example that though the *Brahmins* in population come to only 6·48 per cent. they hold 72·25 per cent. of interests of proprietors, 56·73 of tenure-holders, 15·08 interests of ryots, and 4·85 interests of under-raiyats. So also of the *Kayasthas* the share in the landed interests is larger by far than their proportion in population would justify them to expect. As we go down the scale we find that the landed interests held are lower than what the population would warrant and though not strangers to the higher types of landed interests, in the interests held the lower types preponderate. For example the *Bauri*—a caste inseparably associated with agricultural occupations—is 11·42 per cent. of the population and yet is represented by ·24 per cent. of interests of proprietors, ·15 of those of tenure-holders, 2 per cent. of those of raiyats, and 5·94 per cent. of interests of under-raiyats. These figures don't represent the sum total of the earnings of the *Bauri* from agriculture for as sharer in produce on *Kishani* system and as an agricultural labourer he gets more added to his income.

The position of Bagdis, Doms, Haris, Mals and Santals is far worse. These are the castes which provide the bulk of sharecroppers and agricultural labourers.

437. The distribution of the general population under the eight main livelihood classes will be found in Subsidiary Table I.8. The following Statement I.146 expresses the population in each livelihood class in each district as a percentage of the total population of West Bengal.

STATEMENT I.146

Population in each livelihood class in each district expressed as a percentage of the total population of West Bengal, 1951

State and District	Total	All Agricultural Classes	I	II	III	IV	All Non-agricultural Classes	V	VI	VII	VIII
West Bengal	**100**	**57·21**	**32·34**	**12·01**	**12·26**	**0·60**	**42·79**	**15·36**	**9·32**	**3·05**	**15·06**
Burdwan	8·83	5·53	2·78	1·30	1·38	0·07	3·30	1·56	0·52	0·22	1·00
Birbhum	4·30	3·50	1·82	0·53	1·12	0·03	0·80	0·24	0·13	0·03	0·40
Bankura	5·32	4·35	2·75	0·53	1·04	0·03	0·97	0·44	0·19	0·04	0·30
Midnapur	13·54	11·06	6·93	2·22	1·83	0·08	2·48	0·82	0·41	0·25	1·00
Hooghly	6·26	3·67	2·00	0·76	0·86	0·05	2·59	1·00	0·56	0·15	0·88
Howrah	6·49	2·04	0·96	0·37	0·67	0·04	4·45	1·87	0·94	0·41	1·23
24-Parganas	18·58	9·93	5·24	1·91	2·67	0·11	8·65	3·49	1·84	0·49	2·83
Calcutta	10·27	0·09	0·02	0·00	0·00	0·07	10·18	2·21	3·05	1·15	3·77
Nadia	4·62	2·47	1·48	0·44	0·52	0·03	2·15	0·44	0·16	0·07	1·18
Murshidabad	6·92	4·78	2·87	0·73	1·14	0·04	2·14	0·68	0·48	0·06	0·92
Malda	3·78	2·69	1·59	0·62	0·47	0·01	1·09	0·36	0·18	0·02	0·53
West Dinajpur	2·90	2·48	1·39	0·78	0·30	0·01	0·42	0·08	0·11	0·01	0·22
Jalpaiguri	3·69	1·79	0·77	0·96	0·04	0·02	1·90	1·34	0·20	0·07	0·20
Darjeeling	1·79	0·57	0·38	0·16	0·03	0·00	1·22	0·72	0·12	0·06	0·32
Cooch Behar	2·71	2·26	1·36	0·70	0·19	0·01	0·45	0·11	0·13	0·02	0·19

438. The following Statement I.147 compares the distribution of livelihood classes in West Bengal with those in several others of India.

STATEMENT I.147

Distribution of population in livelihood classes in several states of India, 1951 (expressed as percentage of total population)

State	All agricultural Classes	I	II	III	IV	All Non-agricultural Classes	V	VI	VII	VIII
West Bengal	**57·21**	**32·34**	**12·01**	**12·26**	**0·60**	**42·79**	**15·36**	**9·32**	**3·05**	**15·06**
Assam	73·34	57·80	12·81	1·74	0·90	26·66	14·68	3·90	1·28	6·80
Bihar	86·04	55·29	8·27	21·87	0·61	13·96	3·94	3·40	0·72	5·90
Bombay	61·46	40·74	9·69	9·05	1·98	38·54	13·76	7·61	2·23	14·94
Madhya Pradesh	76·00	49·50	4·47	20·41	1·62	24·00	10·60	4·39	1·47	7·54
Madras	64·93	34·95	9·58	18·23	2·17	35·07	12·35	6·69	1·68	14·35
Mysore	69·90	55·46	4·76	6·79	2·89	30·10	10·24	5·57	1·16	13·13
Orissa	79·28	50·53	5·94	12·81	1·50	20·72	6·33	2·91	0·53	10·95
Uttar Pradesh	74·19	62·27	5·15	5·71	1·06	25·81	8·38	5·03	1·36	11·04
Vindhya Pradesh	87·12	62·61	6·36	17·62	0·53	12·88	4·60	2·80	0·43	5·05

439. This statement shows at once how deep the crisis in agriculture is in West Bengal, and how fearfully overcrowded and uneconomic agriculture is compared to all other states in India. In no other states except Bombay and Madras is the proportion of Livelihood Class I so small, nor the relative proportions of sharecroppers and agricultural landless labourers so large. It also shows that it is in West Bengal that the largest proportion of the population has been driven away by pressure on the soil to non-agricultural livelihoods. Whereas in Bombay 61·46 per cent. of the population have agricultural livelihoods and 38·54 per cent. non-agricultural ones, in West Bengal more people have non-agricultural livelihoods than in Bombay.

440. In conclusion it may be interesting to take stock of employment in the State and compare the percentage of the earning population with that of persons in the employable age 15-55 over the fifty years 1901-51. This may be done by calculating the percentage of total earners in all livelihoods in all censuses up to 1931 to the total population, and the percentage of total self-supporting persons to total population in 1951. The proportions for years up to 1941 have been calculated on the assumption that the districts affected by the Partition of West Bengal had the same age composition in the portions divided. Indeed, the homogeneity of population in the partitioned halves makes such an assumption acceptable. Statement I.148 shows the percentage of age groups to total population of West Bengal during 1901-51. The effect of increased immigration from 1921, especially of greater proportions of persons of employable age among them, is noticeable between 1921 and 1941, and more sharply in 1951. The mean age of the population still remains at a very low figure, 25 for the general population, 26 for males and 25 for females. This has been calculated on the population excluding the Displaced population but not ordinary immigrants from other states of India and abroad.

STATEMENT I.148

Percentage of age groups to total population of West Bengal, 1901-51

Age groups	1951			1941			1931		
	P	M	F	P	M	F	P	M	F
0—5	14·3	13·3	15·6	12·7	11·7	13·8	14·0	13·1	15·0
5—10	11·9	11·5	12·5	13·1	12·7	13·6	12·3	12·4	12·2
10—15	11·3	11·2	11·4	10·6	10·5	10·7	10·9	11·1	10·8
15—20	10·6	10·2	11·2	9·2	8·9	9·5	9·5	9·0	10·2
20—30	19·0	19·5	18·3	19·2	19·2	19·2	19·9	19·7	20·2
30—40	13·8	14·7	12·6	15·7	16·8	14·4	15·1	16·2	13·9
40—50	9·5	10·1	8·7	9·9	10·7	9·1	9·5	10·1	8·7
50—60	5·6	5·7	5·4	5·8	5·9	5·6	5·3	5·2	5·3
60 and over	4·0	3·8	4·3	3·8	3·6	4·1	3·5	3·2	3·7
0—15	37·5	36·0	39·5	36·4	34·9	38·1	37·2	36·6	38·0
15—60	58·5	60·2	56·2	59·8	61·5	57·8	59·3	60·2	58·3
15—55	57·4	59·3	55·2	54·6	55·1	54·0	54·0	54·3	53·7

Age groups	1921			1911			1901		
	P	M	F	P	M	F	P	M	F
0—5	11·3	10·5	12·2	12·9	12·1	13·8	12·9	12·3	13·7
5—10	14·2	13·8	14·5	14·2	14·0	14·4	14·2	14·1	14·2
10—15	11·1	11·9	10·0	10·5	11·4	9·5	10·6	11·7	9·5
15—20	9·8	9·3	10·4	9·5	9·0	10·1	9·2	8·8	9·0
20—30	19·3	18·9	19·8	16·4	16·8	16·0	16·0	16·2	15·7
30—40	14·9	16·0	13·8	16·4	16·8	16·0	16·0	16·2	15·7
40—50	9·7	10·4	8·9	7·6	7·8	7·4	8·0	8·1	7·9
50—60	5·4	5·3	5·6	7·6	7·8	7·4	8·0	8·1	7·9
60 and over	4·3	3·9	4·8	4·9	4·3	5·4	5·1	4·5	5·8
0—15	36·6	36·2	36·7	37·6	37·5	37·7	37·7	38·1	37·4
15—60	59·1	59·9	58·5	57·5	58·2	56·9	57·2	57·4	56·8
15—55	54·2	54·3	54·1	53·3	53·4	53·1	53·1	52·9	53·8

441. Statement I.149 shows the proportions to their respective total populations, of earners in agricultural and non-agricultural livelihoods during 1901-51 (except 1941) and the percentages of persons, males and females of employable age to total, male and female populations for each year.

STATEMENT I.149

Proportion of earners in agricultural and non-agricultural livelihoods to total population and proportion of general male and female populations of employable age (15-55) to total, male and female populations 1901-51 (except 1941)

	1951	1931	1921	1911	1901
1 Agricultural Livelihoods	14·9	18·5	23·4	23·4	19·8
2 Non-agricultural Livelihoods	16·6	14·3	16·1	17·7	19·1
3 Total of 1 & 2	31·5	32·8	39·5	41·1	38·9
4 Proportion of general population of employable age (15-55) to general population	57·4	51·0	54·2	53·3	53·1
5 Proportion of male population of employable age (15-55) to total male population	59·3	54·3	54·3	53·4	52·9
6 Proportion of female population of employable age (15-55) to total female population	55·2	53·7	54·1	53·1	53·8

442. This indeed is a shocking revelation, the details of which will be found in Chapters IV and V. It shows how gradually the proportion of earners to total population has been declining steadily in agricultural and total livelihoods since 1911. (The figures of 1901 are less reliable inasmuch as this was the year when elaborate classification of livelihood was undertaken for the first time in the Indian Census and due allowance must be made for inexperience.) What is more alarming is the almost stationary proportion of the population in non-agricultural livelihoods since 1911, which indicates how the excess population steadily squeezed out in increasing numbers from agriculture remains unabsorbed in non-agricultural livelihoods and goes on widening the fearful gap between the total population of employable age and the population employed in earning a living. The low proportion of employment in non-agricultural livelihoods in 1931 reflects the effect of the Great Economic Crisis, the full blast of which was felt only after the census had been taken, but it teaches how vulnerable non-agricultural livelihoods in this country are even to a moderate crisis. It should be remembered that since the proportion of immigrants of employable age (15-55) is about 79 per cent. of total immigrants from other states of India the proportion of unemployment among persons born in West Bengal must be much more than the gap suggested by items 4 and 3 in the above statement.

443. Unfortunately the analysis must stop here for lack of information on unemployment so far as the general population is concerned. But that the growth of industry in this State does not keep pace with the demand for employment, and that agriculture is more and more getting to be a losing battle seem established. There are no overall authentic figures of unemployment to base conclusions upon but insofar as registrations at Regional Employment Exchanges go they are some sort of an index of the mounting crisis. The limitations of the material discussed below obtained by courtesy of the Regional Director of Resettlement and Employment, West Bengal, for all Employment Exchanges under his

charge in the State require to be stated before its figures are considered. Registrations in that Directorate are made every day and every applicant, if he is still unemployed, is required to renew his registration every two months. If at the end of the two months he fails to renew his registration but turns up some time thereafter he is required to undergo a fresh registration. The figures below are therefore not cumulative from year to year but represent the position more or less in December of every year of the number of persons seeking employment and the number placed for employment. On the one hand, as the weekly journal, *Capital*, in its issue of 21 August 1952 observed—" though eloquent enough, these figures tell us nothing of those other unemployed persons who have not registered themselves at the exchanges which are not to be found all over the country, but nonetheless they probably give reliable statistical data for the main centres of population ". On the other hand, the statistics do not contain information of those applicants who, after registration, have secured some sort of a job themselves privately, but do not care to report it at their Exchange but continue their registration in the expectation of better placements. The figures for placements similarly do not indicate that they have been provided with situations for certain, but that so many cases have been sent up with the recommendations of the Directorate to employers of labour at the latter's request. " For these bureaux cannot create employment, they can only suggest, direct, or recommend to principals and personnel certain helpful courses of action." Even as the registrations do not represent the exact state of unemployment of those registered, neither do the figures of placements certify that as many persons have been definitely secured employment. It is thus difficult to find out net unemployment from the following statement at any particular point of time or ascertain the success of the Directorate in securing employment, but the statement acts as a gauge in the stream of livelihood to mark off at any point of time the comparative level of unemployment. But even while it is yielding a reading its level is changing. This has to be borne in mind in examining the following statistics.

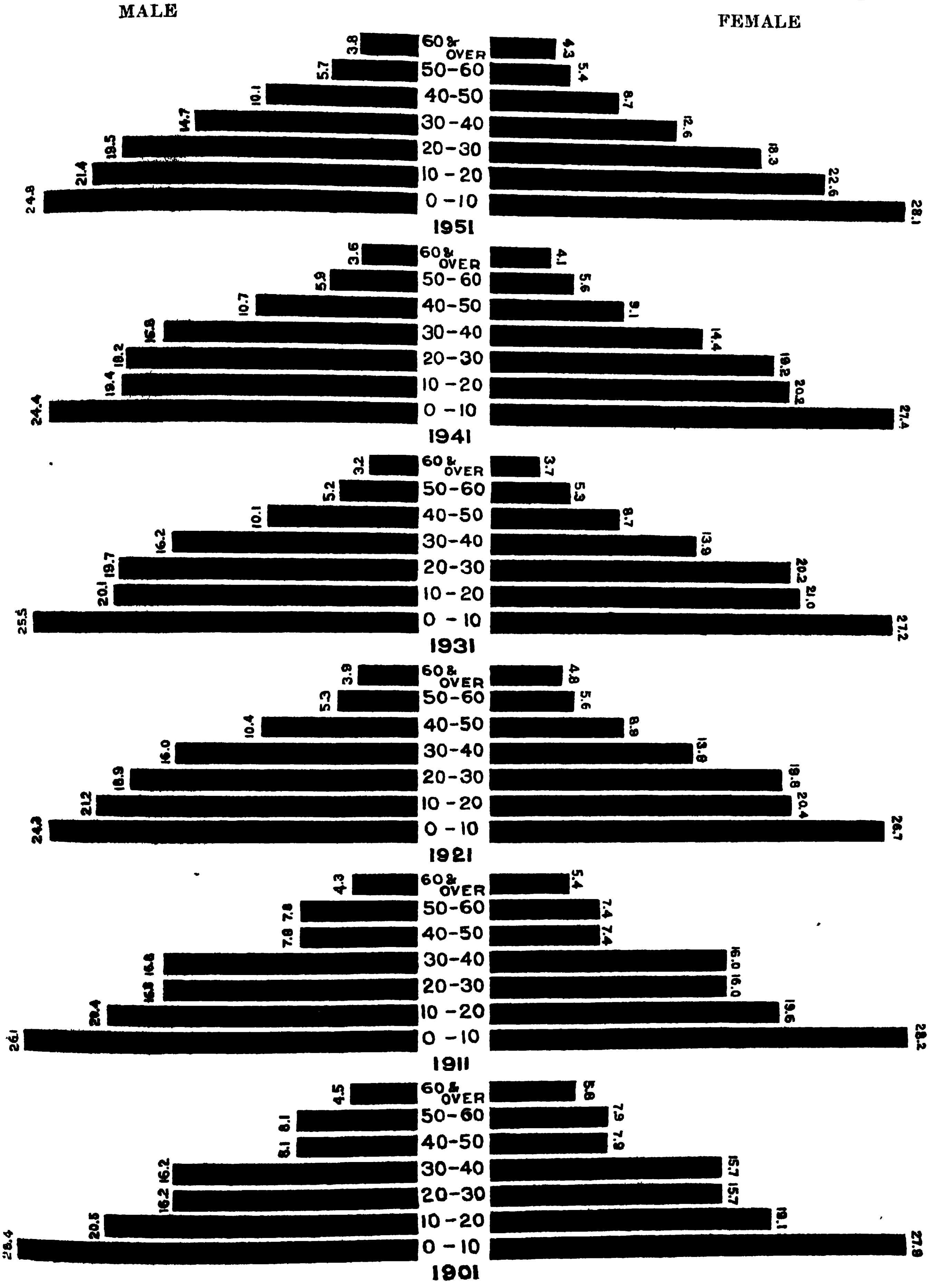
444. There are five Sub-Regional Employment Exchanges in the State with the main Regional Employment Exchange in Calcutta. They are located in Asansol, Khargpur, Serampur, Howrah, Kidderpur (Calcutta), Calcutta (Regional Office), Barrackpur and Darjeeling. Thus they are mainly in the industrial areas with one in the plantation zone. Statement I.150 shows registration and placements between 1945 and 1952.

STATEMENT I.150

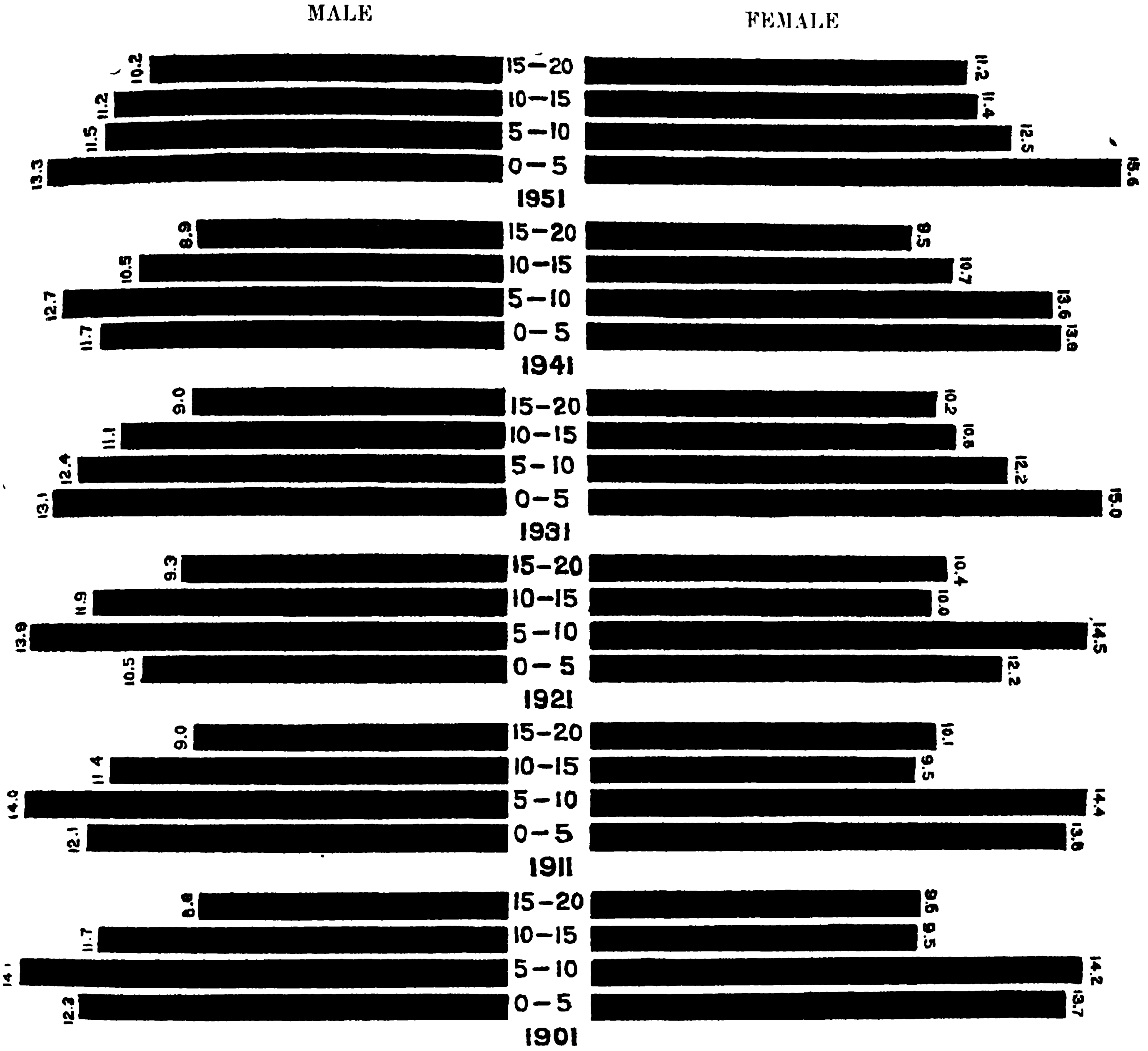
Registrations in the Employment Exchanges of West Bengal during 1945-52 representing position in December of each year

	1952 (upto July)	1951	1950	1949	1948	1947	1946	1945 (from July)
Ex-servicemen . .	2,308	6,470	5,965	9,394	15,486	22,267	18,062	553
Displaced persons .	22,722	48,550	56,332	24,504	29,643	14	..	..
Others . . .	73,687	124,784	98,676	87,047	71,918	27,716	21,778	4,112
Total .	98,717	179,804	160,973	120,945	117,047	49,997	39,840	4,665

AGE PYRAMID FOR WEST BENGAL 1901---1951



PYRAMID OF AGES 0-20 IN WEST BENGAL 1901---1951



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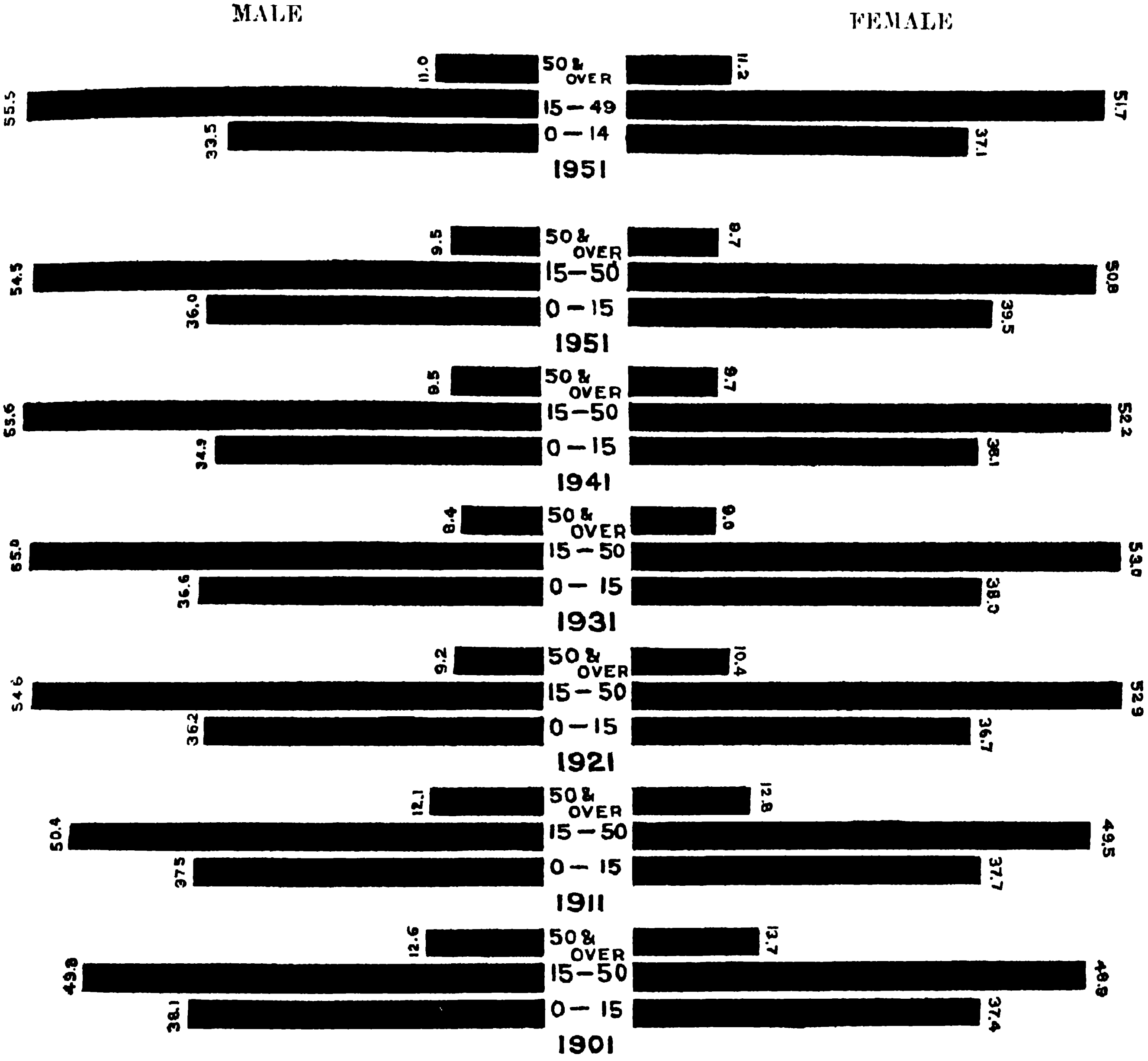
ECONOMICALLY PRODUCTIVE AND UNPRODUCTIVE AGE GROUPS 1901---1951



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445. The mounting figures of registration are not proportionately compensated by placement of which the following Statement I.151 gives an account for the same period.

STATEMENT I.151

Placements by the Employment Exchanges of West Bengal during 1945-52 representing position in December of each year

	1952 (upto July)	1951	1950	1949	1948	1947	1946	1945 (from July)
Ex-servicemen . .	464	2,065	1,032	1,855	4,863	6,323	3,914	32
Displaced persons .	3,389	9,422	10,239	2,683	2,355	1	..	..
Others	20,640	27,396	14,524	16,409	18,317	4,637	2,811	218
Total	24,493	38,883	25,795	20,947	25,535	10,961	6,725	250

446. It is superfluous to comment in detail on these figures beyond noting that ex-servicemen seem to have received a welcome share of sympathy and attention. It is also possible that fewer of them declare themselves still as ex-servicemen. But the absorption of Displaced persons in employment seems to be very tardy. The great majority of them, coming from the agricultural districts of East Bengal, are either agriculturists or white-collar workers or professional men for whom the Exchanges might find it difficult to think up jobs suitable both to employer and candidate.

447. The Ministry of Labour deserves to be congratulated for having directed public attention recently to unemployment of educated persons and the output of the universities, the big excess of Arts graduates and the paucity of technical education. The Ministry took a gauge reading of the educated unemployed on 26 May 1952 and published it with comments in the middle of August 1952. At the end of May this year there were 366,595 unemployed persons registered with the exchanges of whom 14,828 were graduates and 101,038 matriculates. The Weekly Journal *Capital* in its issue of 21 August 1952 remarked:

> Though possibly more irksome, unemployment is otherwise no more serious for a graduate or a matriculate than for any other member of society. Not unexpectedly, the heaviest concentration of educated unemployed was found in the large centres of population which are also university cities. The figures given are: Calcutta (9,072 matriculates; 2,882 graduates); Bombay (7,575 matriculates; 1,131 graduates); Delhi (7,270 matriculates; 1,982 graduates) and Madras (3,191 matriculates; 614 graduates). West Bengal had the highest number of unemployed graduates and Madras (wherein Sri C. P. Ramaswamy Iyer once cynically observed every tram-conductor was a graduate) carried off the palm for the largest number of out-of-work matriculates. No mawkish sentimentality is necessary to discern that behind each of these thousands of cases is a story of human anxiety, fluctuating and frustrated hopes and the personal and social demoralisation that accompanies inability to get a start in life.
>
> The press summary of the investigation's finding arrives at the curious conclusion that encouragement is to be derived from the fact that whilst the demand for educated persons is about 2,500 per month the universities turn out about 45,000 graduates annually. Even if we assume that the intake of educated persons for government service of one kind or another is regularly of the order of 2,500 per month, this would still leave a surplus of 15,000 graduates to be absorbed into commerce, industry and the professions each year, to say nothing of the larger and ever mounting total of jobless matriculates. One would hardly describe this as a matter of satisfaction. Supply is

clearly much in excess of demand, and an examination of the monthly returns of one hundred and twentysix employment exchanges shows that in the first five months of this year there was a steady decline in the number of vacancies notified, with a corresponding increase in the number of unemployed remaining on the registers at the end of each month. It has to be emphasized that the exchanges do not furnish a complete picture of the total of Indian unemployment, but they do show enough to indicate the main trends in the situation, one of which is that those who have passed certain not very advanced educational tests are finding it no easier than the manual or other worker to secure work and wages. This year's increase in unemployment is probably directly traceable to the somewhat lower tempo of economic activity which began to be noticeable in the autumn of 1951. This is the short-term aspect of the matter.

On a longer view the Employment Service investigation records that " either more or different (*e.g.*, technical) education seems advisable until the absorptive capacity of government and industry increases ". This is, of course, the obvious, almost redundant, comment upon the present situation. Of the 14,828 unemployed graduates mentioned above, 563 had taken a degree in engineering (288 of whom emanated from West Bengal), 227 in medicine (118 from West Bengal) and 14,038 in other subjects which we presume include anything from anthropology to business methods. Matriculates have not begun any kind of specialisation, and no breakdown of subjects is possible in their case. Indeed, some Indian educationists consider that matriculation is little more than a badge of literacy.

Attention was first squarely directed on this matter by the Sadler Commission 35 years ago. Since that time the condition of the middle classes has still further deteriorated. A second world war has raised the cost of living far above the levels that prevailed in the ' twenties '. Each decennial census has shown an excess of births over deaths at a rate which means a nett addition to the population of about 3·6 million per annum. Mass movements of refugees following the partition of the sub-continent have placed an intolerable strain upon the municipal services—including the educational services—of the larger Indian towns. The long-term pull continues to be away from the countryside to the highly congested towns, in which alone the educated middle-class youth sees a chance of securing suitable employment.

448. The following Statement I.152, obtained by courtesy of the Regional Director of Resettlement and Employment, West Bengal, shows the number of Matriculates and Graduates on the live Register of Employment Exchanges on 26 May 1952.

STATEMENT I.152

Matriculates and Graduates on the Live Register of Employment Exchanges as on 26 May 1952 in West Bengal

Name of Exchange	Passed matriculation but not completed a degree course	Degrees in			Total
		Engineering	Medical	Others	
Calcutta	9,072	255	100	2,518	11,954
Asansol	1,052	10	..	47	1,109
Barrackpur	1,574	6	8	102	1,690
Howrah	2,194	3	1	174	2,372
Kidderpur	1,200	14	..	40	1,254
Darjeeling	805	..	2	33	840

SECTION 7

CONCLUDING REMARKS

Natural Population of West Bengal, 1891-1951

449. It is necessary to preface the few general conclusions that may be attempted on the growth and movement of the State's population in the last few decades with an estimate of West Bengal's natural population from one decade to another. Such an estimate, for reasons already stated, is obliged to be *very* approximate both on account of the partition of Bengal in 1947 as a result of which several large assumptions have to be made if one were to proceed on this matter at all, and on account of the very crude test applied to migration in the Indian census, whereby place of birth is the only determinant of this very important demographic phenomenon. It will be recalled that L. S. Vaidyanathan in his Actuarial Report on the Census of 1931 condemned this crude test of determining migration and recommended additional tests which his predecessors, from Hardy in 1881 to Meikle in 1921, had insisted upon. In the absence of improved tests of migration, however, place of birth still continues to be the only test and in the estimates that follow the undermentioned assumptions are made.

(i) Between 1891 and 1941 immigration refers to all that population which immigrated into the present boundaries of West Bengal but was born outside the limits of unpartitioned Bengal.

(ii) Between 1891 and 1921 emigration refers to all that population which emigrated to other provinces of India (outside unpartitioned Bengal) and elsewhere but were born within the present boundaries of West Bengal. The estimate of emigration in 1931 and 1941 has been made on the same territorial principle by extrapolating a simple quadratic equation $y=a+bx+cx^2$ and verifying the results (in respect of the present boundaries of West Bengal) as closely as possible with inter-provincial migration available in Chapter III of the Census Reports of Bengal and India, 1931.

(iii) Thus it will be seen that in respect of immigration into the present boundaries of West Bengal between 1891 and 1941 those born in what now constitutes East Bengal have been left out of account, while in respect of emigration those that emigrated from West Bengal to East Bengal between 1891 and 1941 have been similarly left out of account.

(iv) Immigration and emigration into and from the districts affected by the partition of 1947 (24-Parganas, Nadia, Malda, West Dinajpur and Jalpaiguri) have been adjusted proportionately to the volume of total migration in them and their total area with empirical regard to particular centres of migration in these districts.

450. These explanations are sufficient apology for the rough estimates that may be made of the 'natural population' of the State but they should be preceded by an examination of the official census estimate of the population of West Bengal in 1941, for it is not difficult to agree that a percentage increase of 22·1 on the natural population of 1931 in ten years (1931-41) is both fantastic and unacceptable.

451. It is heartening to find that the Census Department of Pakistan has taken the bull by the horns and in Census Bulletin No. 2 published by the Office of the Census Commissioner, Pakistan, in October 1951 has dealt with the question of inflation in the 1941 census count in a very sensible, simple and straightforward manner. After quoting from Census Reports the possible political and communal considerations that might have affected the census count in 1921, 1931 and 1941, the Bulletin observes on page 28 that "such a process (of scrutiny and purification, corruptions that were dealt with before the tables were

prepared) must have been difficult and the results cannot but be unreliable". It then proceeds in pages 30-33 to fit a simple free hand curve to the total populations in East Bengal between 1881 and 1951 and also separately to the Muslim and Hindu populations between 1901 and 1951. The result has been as effective as it has been simple and possibly as near the mark as any complicated calculation on the data available would achieve. The Bulletin concludes that whereas the official census count of 1941 returned the population of East Bengal as 42·3 millions, a correct estimate would be in the neighbourhood of 38·6 millions. The population of East Bengal in the 1951 census count, which the Bulletin claims to be the result of a sober, unbiassed census, was returned as 42·1 millions. Thus in 1941, according to this Census Bulletin of Pakistan, communal rivalry was responsible for a bogus inflation of 42·3−38·6=3·7 millions. East Bengal has always been far less open to large scale immigration from other provinces of India and outside than West Bengal and whereas it is possible to try to fit without adjustments a free hand smooth curve readily on to the populations of successive decades for East Bengal it may not be advisable to do so in the case of West Bengal. But as will be presently seen a free hand curve can be made to fit on to the natural population of West Bengal between 1891 and 1951.

452. As has already been remarked, a population of 21,837,295 for West Bengal in 1941 (between 17,663,427 in 1931 and 24,810,308 in 1951) is so plainly unacceptable that an investigation is necessary. A fairly accurate estimate of the population of a State is made about three months before every Indian Census on the conclusion of putting a census number on every house. These estimates for December 1940 were available among the census papers of 1941 and the following statement compares the figures as officially published and the estimates of December 1940.

STATEMENT I.153

Preliminary estimate of population in West Bengal in December 1940 and officially published final estimates on the conclusion of the Census of 1941

State and District		Officially published final count 1941	Preliminary estimate December 1940	Difference (2) — (3)	Percentage of difference in (4) on (2)
1		2	3	4	5
West Bengal	**Total**	**21,837,295**	**20,756,682**	**1,080,613**	**4·9**
	Rural	**17,196,607**	**16,716,039**	**480,568**	**2·8**
	Urban	**4,640,688**	**4,040,643**	**600,045**	**12·9**
Burdwan Division		*10,287,369*	*9 923,556*	*363,813*	*3·5*
Burdwan		1,890,732	1,811,059	79,673	4·2
Birbhum		1,048,317	1,036,115	12,202	1·2
Bankura		1,289,640	1,242,699	46,941	3·6
Midnapur		3,190,647	3,158,993	31,654	1·0
Hooghly		1,377,729	1,299,233	78,496	5·7
Howrah		1,490,304	1,375,457	114,847	7·7
Presidency Division		*11,549,926*	*10,833,126*	*716,800*	*6·2*
24-Parganas		3,669,490	3,517,442	152,048	4·1
Calcutta		2,108,891	1,730,074	378,817	18·0
Nadia		840,303	791,500	48,803	5·8
Murshidabad		1,640,530	1,575,630	64,900	4·0
Malda		844,315	825,932	18,383	2·2
West Dinajpur		583,484	565,711	17,773	3·0
Jalpaiguri		845,702	809,626	36,076	4·3
Darjeeling		376,369	376,369	..	..
Cooch Behar		640,842	640,842	..	..

NOTE—The preliminary estimates for Calcutta were not found among the Census Papers for 1941 but have been quoted from the Special Officer of Calcutta's Administration Report. Those for Darjeeling and Cooch Behar were not available among Census Papers for 1941, but as these two districts do not appear to have indulged in inflation the preliminary estimates are arbitrarily equated to final figures.

453. It seems that Calcutta, 24-Parganas, Howrah, Hooghly, Nadia and Murshidabad were the worst offenders in the race for inflation in the 1941 census. It has already been shown in the subsection on the growth and movement of population in Calcutta (pp. 238-41) that there is reason to suspect that even the preliminary estimate of December 1940 was inflated because the race for inflation had started as early as March-April 1940, and it could not have been confined to Calcutta alone but must have affected other districts also. The places worst affected by this plague were naturally the cities and towns where it was easy to sway popular feeling with pamphleteering and demagogic speeches. But since there is no other tangible means at our disposal to estimate the true *de facto* population of West Bengal at the time of the 1941 census count, the estimate of 20,756,682 may be taken to have been approximately the population in 1941 of the State as at present constituted.

454. An estimate of the natural population of the State, subject to the defect in the material available, may now be attempted. Up to 1921 immigration and emigration were tabulated by each district which facilitated the calculation of net migration for each unit, and the State as a whole. But in 1931 emigration was tabulated only by such a large unit as a province. In 1941 immigration was estimated on a 2 per cent. sample of the population and emigration was not considered at all in the Bengal Report. The absolute figures of total population, immigration, emigration, and net or 'natural' population of the State are set out below :

STATEMENT I.154

Estimate of net or 'natural' population of West Bengal 1891-1951

	1951	1941 (uncorrected)	1931	1921	1911	1901	1891
Total population	24,810,308	21,837,295	17,663,427	16,400,837	16,792,800	15,834,010	14,649,850
Immigration	4,600,672	2,076,204	1,477,905	1,460,054	1,428,075	1,045,314	687,662
Emigration	311,116	185,753 (estimated)	155,781 (estimated)	191,200	262,010	66,121	101,305
Net or natural population . .	20,520,752	19,946,844	16,341,303	15,131,983	15,626,735	14,854,817	14,063,493
Percentage variation . . .	+2·9	+22·1	+8·0	−3·2	+5·2	+5·6	..

455. The estimates of emigration for 1931 and 1941 were obtained by extrapolating from the equation $y=a+bx+cx^2$ and extracting trend values as follows:

	Emigrants observed	Estimated emigrants ($y=a+bx+cx^2$)
1911	262,010	262,010
1921	191,200	191,200
1931	..	155,781
1941	..	185,753
1951	311,116	311,116

456. The estimates for 1931 and 1941, as has already been noted above, have been checked with Chapter III of the Census Reports for India and Bengal, 1931, and the Administration Reports of 1941, and may be accepted as approximating the correct position.

457. As Sri S. N. Sengupta in his note on the birth-and-death record of West Bengal has observed, "the number of immigrants recorded in 1941 is obviously grossly exaggerated" and a handy alternative,—which cannot be very far from the truth, having regard to the fact that already in 1941 West Bengal had become a centre of war production, however tardy, and the price of jute was on the increase,—is to take the mean of the immigrations of 1931 and 1951. The figure for immigration in 1931 was 1,477,905 ; that for 1951 was (4,600,672−2,618,938)= 1,981,734, the figure 2,618,938 representing those who were born in what is now East Bengal. The mean of 1931 and 1951, therefore, comes to 1,729,820 which looks a big enough leap from

1931 but in the absence of reliable data should not be further pared down arbitrarily. Thus the estimate of net or 'natural' population of West Bengal and its percentage variation from decade to decade in 1891-1951, corrected for 1941, is attempted in the following statement:

STATEMENT I.155

Estimate of net or 'natural' population of West Bengal 1891-1951 (the population of 1941 having been corrected)

	1951	1941 (corrected)	1931	1921	1911	1901	1891
Total population	21,810,308	20,756,682	17,663,427	16,100,837	16,792,800	15,834,010	14,649,850
Immigrants	1,600,072	1,729,820	1,477,905	1,460,054	1,428,075	1,045,314	687,062
Emigrants	311,116	185,753	155,781	101,200	262,010	60,121	101,305
Net or natural population . . .	20,520,752	19,212,615	16,341,303	15,131,983	15,626,735	14,854,817	14,063,493
Percentage variation	+6·8	+17·6	+8·0	−3·2	+5·2	+5·6	..

458. These figures when plotted on a graph shows that even a natural population of 19,212,615 is too high for 1941. The likely lower limit for the figure for that year is the reading at the point where the smooth freehand curve intersects the line of 1941: which is 18,600,000. This point of intersection, however, leaves out of consideration what the natural population of West Bengal in 1951 would have been had there been no famine and epidemic of 1943-44 and no exodus of the Muslim population from West Bengal to Pakistan between 1947 and 1951. There is reason to believe that these two causes are responsible for a considerable deficit in the natural population of 1951; this surmise is borne out by the findings of the Famine Inquiry Commission (1945) and the published figures of the Census Commissioner of Pakistan. If the famine and epidemic of 1943-44 had not occurred and if there had been no exodus of Muslims to Pakistan between 1941 and 1951, the natural population of West Bengal would in 1951 perhaps have stood at 20·088 millions. If this figure (20,088,000) tentatively plotted on a graph the natural population of 1941 seems to read off on the chart as 18·9 millions.

459. The rates of increase for 1931-41 and 1941-51 now conform more to the experience of the two decades and are as follows:

STATEMENT I.156

Estimated net or natural population of West Bengal, 1931-51

	1951	1941	1931
Estimated natural population	20,520,752	19,212,615	16,341,303
(a) Percentage variation	+6·8	+17·6	
(b) Percentage variation on the assumption that the natural population in 1941 was 18,600,000	..	18,600,000	
	+10·3	+13·8	

460. The second set (*b*) of percentage variations for 1931-41 and 1941-51 in the above statement seem far more likely than the first set (*a*). Assuming that the natural population of the State in 1941 was 18·6 millions, the total population of 1941 allowing for immigration and emigration, works out at 18,600,000 +1,729,820−185,753=20,144,067.

461. The officially published final count of 1941 for West Bengal was 21,837,295. It seems that out of this total, bogus inflation accounted for 1,693,228 or 1·7 million entries or about 7·8 per cent. of the published figure. The correct population for 1941, therefore, was perhaps in the neighbourhood of 20·1 millions. Thus even at the stage of the preliminary estimates of December 1940 as much as 613 thousands had already been inflated. Thus, whereas in East Bengal there was a bogus inflation to the extent of 3·7 millions, the corresponding extent of bogus inflation in West Bengal was 1·7 millions. It is curious that the percentage of inflation in East Bengal on the estimated correct population of 38·6 millions for 1941 works out at 9·6, while that for West Bengal on the estimated correct population of 20·1 millions for 1941 works out at 8·5. Much of the inflation in West Bengal was probably concentrated, as already observed, in the worst offending districts of Calcutta, 24-Parganas, Howrah and Hooghly.

Growth of Population in West Bengal compared to growth in other countries

462. It is a common belief among persons who compare the material prosperity of the continents of Europe, the two Americas and Australia with the poverty of India, that the poverty and squalor, death and disease of the latter country and its constituent States are due to the unchecked and devastating rate at which the population of India has grown since 1801, when she received peace and internal security under British sovereignty. It is also a persistent common belief, however much and often it may have been disproved by authoritative figures, that the rate of growth of population in India is accelerated every year by a 'devastating torrent of babies', the like of which is experienced in few other countries. Phrases like 'teeming millions' come in very handy. Absolute figures of births heighten the effect of the picture of India's growth quite inordinately, as she is already a very populous country, while rates of growth are conveniently forgotten.

463. But India still remains a poorly country so far as the rate of growth of population during 1801-1951 is concerned, which means that had her growth during this period been really on the scale as was experienced in Europe, Great Britain, the two Americas and Australia over the same period, she would now perhaps be well on the way of what the Royal Commission on Population in Great Britain (1949) would call a 'slackening in the growth' of her population. But that did not happen. The Famine Inquiry Commission in India (1945) in the Final Report (page 75) observed that "the increase (in the population of India) from 1872 to 1931 was 30 per cent. In England and Wales during the same period, an increase of 77 per cent. took place". The Famine Inquiry Commission of 1945 at page 74 of its Final Report published the following percentages of real increase for each decade during 1872-1941:

Period	Percentage of real increase
1872—1881	1·5
1881—1891	9·6
1891—1901	1·4
1901—1911	6·4
1911—1921	1·2
1921—1931	10·6
1931—1941	15·1

464. Kingsley Davis in *The Population of India and Pakistan* published in 1951

makes the following comment at pages 26-27 of his book:

> On the basis of these corrected figures it can be stated with some confidence that from 1871 to 1941 the average rate of increase of India's population was approximately 0·60 per cent. per year. This was slightly less than the estimated rate for the whole world (0·69) from 1850 to 1940. India's modern growth, therefore, is not exceptional either way, but close to average. It is, however, less than that found in Europe, in North America, and in a good many particular countries. Figure 4 (not reproduced—A.M.) compares the absolute and relative increase with that in the United States, demonstrating the much faster growth in America. Figure 5 (not reproduced—A. M.) compares various countries with India. The total Indian increase during 1871-1941 was 52 per cent. The British Isles during the same period increased 57 per cent., and during the 70-year period from 1821 to 1891 (more comparable to India's recent history) they increased 79 per cent. Similarly Japan, during the 70 years from 1870 to 1940, experienced a growth of approximately 120 per cent., and the United States a growth of 230 per cent.
>
> Clearly, India's past increase has not been rapid when compared with that of countries farther along in the industrial revolution. The popular notion that it has been faster than in most modern countries—a notion derived from the massiveness, density, and poverty of the population—is obviously unwarranted. (The same popular notion on the part of Westerners seems to attach to every dense Oriental population. 'With few exceptions, recent writers have asserted that the rate of increase of the Japanese population has been and is exceptionally high.....Nonetheless, it is an illusion, and there is nothing in vital statistics to support it.' E. F. Penrose, *Population Theories and Their Application*, p. 98.)

465. An instructive comparison can be drawn between the percentage rates of real increase in India, as quoted from the Report of the Famine Inquiry Commission, and the following statement on the population of Great Britain at various dates (1801-1941) borrowed from page 8 of the Royal Commission on Population in Great Britain (1949). It shows how meagre has been the rate of increase in India even in the present century compared to Great Britain's during the same period and how beside the point it is to hold India's rate of growth as almost entirely responsible for swamping whatever progress the country makes in its material condition.

STATEMENT I.157

Population of Great Britain at various dates, 1801-1941

Date	Total Population (in thousands)	Increase in previous 20 years (in thousands)	Increase as a percentage of population 20 years before
1801 . . .	10,501	..	..
1821 . . .	14,092	3,591	34
1841 . . .	18,534	4,442	32
1861 . . .	23,128	4,594	25
1881 . . .	29,710	6,582	28
1901 . . .	37,000	7,290	25
1921 . . .	42,769	5,769	16
1941 . . .	46,605	3,836	9

NOTE—No census was taken in 1941. The figures given are an estimate of the population defined in the same ways as in previous census figures.

466. A pointed comparison is provided by Figure 5 in Kingsley Davis's book and at page 7 of the Report of the Royal Commission on Population in Great Britain. The following statement is borrowed from the latter source:

STATEMENT I.158

Population of the World by continents 1750 and 1900

(Estimated by Sir Alexander Carr-Saunders *World Population*, 1936, p. 42)

	1750	1900	Percentage increase 1750—1900
	Millions		
Europe . . .	140	401	186
North America .	1·3	81	6,140*
Central and South America	11	63	473
Australasia . .	2	6	200
Africa . . .	95	120	27†
Asia . . .	479	937	96
World . . .	**728**	**1,608**	**121**

* (*Sic*) Should be 6,131
† (*Sic*) Should be 26

467. This statement is instructive. It shows that growth during a hundred and fifty years (1750-1900) has been particularly tardy in the under-developed continents of Africa, Asia and Australasia, and that the more backward a continent is in agriculture, industry and general prosperity the more retarded

has been its growth. It is acknowledged on all hands by experts of the World's population that a phenomenal growth started about 1750 with the industrial revolution. The reasons for this start have been succinctly described by the Royal Commission on Great Britain's population as 'the development of the modern techniques of production, trade and communications', 'an expanding market and an expanding labour supply', and the building up of 'the great system of international trade, international investment, and the development of non-European territories which was such an essential part of the economic history of the Victorian age' (p. 7). The growth spread around the earth with 'a new overseas world' of commerce and industry. Some countries, especially Germany, Belgium, Switzerland, Norway, Sweden, Denmark, Austria, and Czechoslovakia (*ibid.* p. 9), have virtually completed their cycle of growth set in motion by the Industrial Revolution. Their populations are approaching a stationary state again. Other areas, such as Africa, have hardly yet entered the cycle. India appears to be in its early stages, with plenty of potential growth ahead. Here, 'where formerly periods of rapid growth alternated with periods of stability, the former seems now to have become the rule' (*ibid.* p. 9).

Growth since 1920

468. Uninformed or very casual observers of India's population growth, not reading between the lines of its extremely sporadic nature, have often doubted the correctness of the census count in each decade, and deprecated its reliability. As has been mentioned in the Preface, although certain data collected from census to census do not lend themselves to fine statistical analysis, it would be very wrong to regard the over-all counts as imperfect or far from the truth. The over-all counts are, if anything, fairly accurate and it should be noted that not even celebrated actuaries like G. F. Hardy and W. Meikle or mathematical theorists on population like J. A. Baines and George Knibbs, or modern demographers like Alexander Carr-Saunders or F. W. Notestein have found fault with them. It is those, vexed in trying to find a smooth trend in India's population from one census to another or baffled in attempting to fit a logistic curve to it, who have deprecated the correctness of the counts. It is easy to lose sight of the fact that sporadic growth, rather than a smooth trend, is the general order in India, that in the past, in place of periods that now show a slight increase, there were periods showing actual declines so that the net effect was previously one of long-range stagnation. Only in recent decades has the position improved in showing periods of marked increase alternating with others of slight increase. Of the three great Malthusian forces, war has never been a great element in any country, but famine and disease have from time to time badly mauled India even after 1872. In the decades of negligible growth, the trouble lay in one or the other of these two forces. During 1871-81 there occurred the great famine of 1876-78; during 1881-91 and 1891-1901, three bad famines; and during 1911-21 the great influenza epidemic of 1918-19. There were, besides, many small local famines between 1871 and 1920. These were precisely the decades in which calamities struck down India's population. During the other decades, called 'normal' by Census Superintendents, no widespread catastrophes occurred and the population grew rapidly. The following quotation from page 75 of the Final Report of The Famine Inquiry Commission in India (1945) is fairly conclusive:

> During the years 1921 to 1941 India was free from major famines, and no abnormal mortality from epidemic disease, such as that caused by plague and influenza during the previous 20 years, took place. We may reasonably conclude that the relatively slow and fluctuating rate of growth during most of

the period for which census figures are available, was due to high mortality from disease and famine, and that in the absence of these checks the population would now be considerably greater than it is.

469. To make the above appear more conclusive we may compare the populations of Great Britain, India and West Bengal at various dates.

STATEMENT I.159

Population in millions of Great Britain, India and West Bengal at various dates, 1801-1941

Date	Population of Great Britain	Population of India (published)	Population of India (estimated by Kingsley Davis, p. 27)	Population of West Bengal
1801	10·5	..	..	13·6 (estimated)
1821	14·1	..	..	..
1841	18·5	..	..	..
1861	23·1	..	..	..
1871	..	203·4	255·1	13·6
1881	29·7	250·2	257·4	13·8
1891	..	279·6	282·1	14·6
1901	37·0	283·9	285·3	15·8
1911	..	303·0	303·0	16·8
1921	42·8	305·7	305·7	16·4
1931	..	338·2	..	17·7
1941	46·6	389·0	..	20·1 (estimated)
Increase between 1881 and 1941	(46·6 – 29·7) =16·9	(389 – 250·2) =138·8	(389 – 257·4) =131·6	(20·1 – 13·8) =6·3
Percentage increase on 1881 population in 60 years	56·9	55·5	51·1	45·7

470. Thus what is important about India's recently accelerated growth is, as Kingsley Davis rightly says, not the rate, which is nothing abnormal, but 'the huge absolute increments'.

> The rate of growth since 1921 (1·2 per cent. per year) has not been phenomenal for modern times. The United States population increased 16 per cent. during the decade 1920-30, a rate never yet equalled in India. But because of the massiveness of India's existing population, even a moderate percentage increase means a huge absolute increment. The modest 1·2 per cent. annual increase during the two decades from 1921 to 1941 added no less than 83 million inhabitants to India's teeming masses—more people than all of Germany contains, and nearly two-thirds the population of the United States (Kingsley Davis, p. 28).

"Something appears to have happened after 1920, however", says Kingsley Davis, "for the alternating process stopped. From 1921 to 1931 the increase, almost 11 per cent., was the highest on record for India, and during the following decade, 1931-41, the record was broken again by a 15 per cent. growth. The twenty-year period from 1921 to 1941 was thus 'extremely normal'. *It was the first time in India's known history that she experienced rapid growth during two successive decades* (the italics are mine.—A.M.). At a time when the Western nations were approaching demographic stability, India with its much larger population was just starting what appears to be a period of rapid and gigantic expansion." (p. 28.)

Probable Reasons of Growth since 1920

471. There is little, however, that warrants the posing of a dramatic question as to what happened to India after 1920

to cause this uninterrupted increase. Very little of intrinsic importance happened to her population in this period. It is what did not happen rather than what happened during 1921-41 that is more germane. This was a steady decline in general, infantile and maternal mortality during 1920-51 and, what was more important, an absence of famine and widespread epidemics. As the Final Report of the Famine Inquiry Commission has pointed out, it was the absence of famine and disease during this period that was mainly responsible for this increase. As will be seen in Chapter VI in the sections on Age, in spite of the defective age returns, there is definite testimony that the population of India has always remained young and potentially capable of enormous increase. It shows very little sign of ageing. The age groups show quite slow movement from decade to decade: the mean age remains almost constant during half a century, and each age group comes, on the one hand, to acquire by birth and progress, and on the other, shed by death, almost the same proportion of human lives from census to census. This leads to two conclusions: first, that the population is precariously alive and has little stamina or vitality to withstand disease or a change for the worse; secondly, that being still very young it possesses all the potentialities of growth and age which have hardly come into play yet, but given the opportunity has still to make great strides of expansion in its cycle before it will slacken its pace and approach a stationary state again. In short, India's population is still in the same stage as those of most under-developed countries in the East. No very significant improvement has yet been made in the health of her people, her agricultural and industrial economy to warrant the assumption that she is definitely headed for a period of larger birth rates and lower death rates, inevitable in a country of rising standards of living. There is no indication that the standard of living has improved since 1921. A seeming improvement in the consumption of luxury articles in the town or the coming into fashion of a few improved styles of necessities, like kerosene lanterns in place of castor oil earthen lamps, or sugar in place of *gur,* or umbrellas in place of large-brimmed palm leaf hats in the village, as has been noted earlier on pages 203-5 of this Report, may be quite deceptive, may be due rather to the exigencies of fashion, or a uniform scheme of distribution, effective advertisement, social competition, or the pressure of foreign trade, or just a plain symptom of irresponsible thriftlessness and desperation, than to any intrinsic improvement in capital formation. As has been previously observed the question of a standard of living comes only when the 'wolf-point' has receded from the scene irrevocably, that is, when the population has been assured a minimum well balanced diet, a minimum programme of housing and clothing, protection and decency, a minimum programme of sanitation, protected water supply and cleanliness. In short, the question of a standard of living is relevant only when a community is past the stage of a 'pain', or subsistence economy, and set on the road to a 'pleasure' economy. It is easy to confuse a rise in the cost of living with an improvement in living standards, but it is necessary to remember that a rise in the cost of living is incompatible with and even inimical to a rise in the standard of living. Consequently, a seemingly better consumption of consumer goods or luxury articles may rather mean eating away one's capital, that is, into one's vitals, than a genuine increase in the wealth ploughed back into agriculture and industry to produce still higher norms of output, which alone can assure maintenance and improvement of existing standards of living. The recent survey of the national income of India does not show any appreciable improvement in this direction and it is therefore futile to imagine that the steadiness of the growth rate has been due to a rise in living standards.

472. But something, however small, really happened to India after 1920 which gave steadiness to her population growth· This was not so much an improvement of her industrial or agricultural production but an appreciable decline in general and infantile mortality. The birth rate has maintained as high an average as any country could aim at and it is unlikely that it will increase further even under better circumstances. A birth rate of 43 or 44 per *mille*, as in West Bengal, maintained over several decades, is stupendous and is unlikely to be exceeded. It is possible only for the death rate to fall and already in West Bengal the general death rate has fallen from 35 per *mille* in 1921-30 to about 27 or 28 in 1941-50. The infantile mortality rate has reduced from 1901-11 or even from 1911-21. The average uncorrected figures for undivided Bengal for the decade 1901-11 were 207·2 for males and 188·0 for females. For 1911-21 the corresponding averages as computed by W. H. Thompson were 216·67 per *mille* male births and 202·0 per *mille* female births. But as the actuarial reports for each census has shown, these uncorrected rates computed on registered events are gross under-estimates and infantile mortality up to 1931 was of the steady order of 250 per *mille* births. W. H. Thompson observed that the relation between the rate for males and that for females is always admitted and well known fact that in very much the same. In spite of the this country greater care is taken of male than of female infants, the mortality among males under twelve months old is regularly about 10 to 20 per *mille* more than among females. The following rates of mortality of infants under 12 months old up to 1947 are taken from the *Statistical Abstract of West Bengal*, 1948 and figures later than 1947 have been compiled from data supplied by the Director of Health Services.

STATEMENT I.160

Infantile mortality rates of infants under 12 months old per 1,000 live births at various dates (undivided Bengal and West Bengal)

Year	Average for both sexes	Males	Females
Average for 1901-11 (undivided Bengal)	..	207·2	188·0
Average for 1911-20 (undivided Bengal)	..	216·7	202·0
West Bengal—			
1938	..	184·5	169·7
1939	..	157·0	144·0
1940	..	154·9	138·4
1941	..	155·7	142·2
1942	..	138·6	128·2
Average for—			
1938-42	..	158·0	144·4
1943	..	183·5	179·1
1944	..	199·9	194·5
1945	..	152·6	144·8
1946	..	149·9	136·2
1947	..	150·3	139·0
1948	136·9	..	..
1949	129·9	..	..
1950	129·8	..	..
1951	109·5	..	..

473. Even if one were inclined to take these statistics with a large grain of salt and to take for granted a deterioration in the standards of vital statistics registration from 1920-21, still, dimensionally, the fall in the rate cannot fail to impress. Making allowances for all possible sources of error an improvement of at least a number of infant lives per year per 1,000 births saved beyond the age of one every year seems certain as between 1920 and 1950. The fall in infantile mortality cannot, of course, have been considerable, for even in Calcutta city infantile mortality has been as high as 250 per *mille* live births during the last five years. A news item in *The Statesman* of 14 November 1950 says:

> One out of every four babies born in Calcutta during the last five years died within a year of its birth, according to statistics provided by the Corporation authorities. Last year, out of 50,424 infants under one year, 12,255 died of various diseases. There was a marked increase in the number of infant deaths during 1943-44 when one

out of two infants died in the city. The huge influx of persons affected by the Bengal famine is stated to have been responsible for this. The most important causes of the deaths were premature births, respiratory diseases, and smallpox, their toll, respectively, being 2,553, 2,386, and 1,792 during the past one year.

Maternal mortality, however, does not indicate any trend worth recording, but it is possible that deaths from child-birth are relatively underreported than other events. For instance the number of deaths from child-birth reported per 1,000 female deaths from all causes in the Burdwan Division varied between 2·0 and 7·1 in 1921-27, whereas it suddenly shot up to 14·3 for 1928, 20·5 for 1929, and 16·9 in 1930 (Census Report of Bengal, 1931, p. 160). For 1941-50 the death rate from 'child-birth' per 1,000 female deaths from all causes was as follows:

Year	Maternal mortality in West Bengal per 1,000 female deaths
Average for—	
1941-50	16·5
1941	20·5
1942	20·1
1943	10·0
1944	10·4
1945	15·0
1946	19·1
1947	16·6
1948	21·1
1949	22·5
1950	16·7

474. The figures of 1928-30 and 1941-50 for maternal mortality show little trend over a period of just a quarter century. The statistics may be examined in another way as the ratio deaths from child-birth bear to 1,000 births (both live and still births) during the same period. The following statement shows that even in this manner of presentation no trend is discernible.

Year	Deaths of mothers from child-birth per 1,000 births (both live and still births)
	Burdwan Division
1928	5·9
1929	7·1
1930	6·7
Average for 1928-30	6·6

Year	Deaths of mothers from child-birth per 1,000 births (both live and still births)
	West Bengal
1941	6·9
1942	6·6
1943	6·7
1944	7·6
1945	7·1
1946	7·2
1947	7·2
1948	8·7
1949	8·4
1950	6·4
Average for 1941-50	7·3

475. The lack of a trend possibly reflects a real state of affairs and it is possible that in the space of a quarter-century there has been no improvement or progressive diminution of maternal mortality, that is, there has been no appreciable improvement in midwifery services and ante- and post-natal care.

476. It is difficult to ascribe the improvement in the general death rate and infantile mortality rate to any one set of causes, and, indeed, it is unnecessary to try to do so. That would amount to an unwarranted over-simplification of social, sanitary and economic trends which are complex and interdependent. Examined individually no one cause sufficiently explains these improvements. For, in the agricultural sector there is no evidence of any effective conquest over Nature, agricultural operations being in the main still pathetically dependent upon the heavens. Industrial growth is still rudimentary and, as has been remarked in Chapter III, as most of the large industrial and commercial concerns still remain incorporated in foreign countries, the profits that they reap are not adequately put back into the industrial field of India to produce greater wealth. The age of famine and scarcity is not yet over. The famine of 1943 is still too fresh in everybody's memory and India still suffers from acute scarcity, now almost an annual event. India's

health services have not substantially improved, although there has been a substantial improvement in the control of cholera, small-pox, plague and malaria in the course of the last eighty years. Still, the way the epidemics of 1944 were handled points to large gaps in their efficiency. There has been very little improvement in health and stamina, and the human frame continues to be fragile as the almost stationary mean age, the high birth rate and the very slowly diminishing death rate will confirm. The diminution in the death rate and infantile mortality rate points to a more effective control or subsidence of epidemic diseases and malaria, while the steady death rates from other causes point to the limited progress made by health services in other directions, for instance, in midwifery service and ante- and post-natal care. Rural indebtedness and low living standards still continue without appreciable change and, if anything, there is a definite change for the worse in certain other sectors. Agricultural production has lost a great deal of variety and there is a general feeling that the yield per acre in most places is declining. The Secretary General of the United Nations, surveying 1951-52, made significant statement on the 19th October 1952 that 'the living standards of underdeveloped countries in Asia and Africa already dangerously low, were still falling' (Reported in *The Statesman,* Vol. CXVII, No. 246652, dated 21 October 1952). The fact that, in spite of the famine and epidemics of 1943-44, the civil commotions and bloody riots of 1946 and 1950, West Bengal's natural population has shown a small but clearly positive rate of growth during 1941-50, whereas under similar stress and strain in an earlier period, say 1872-81 or 1911-21, it register an appreciable decline, and therefore proves an appreciable improvement in the State's vitality, does not bear scrutiny, but rather underlines the fact that the famine and epidemics of 1943-44 did not uniformly affect every district but were restricted to certain localities only. For in East Bengal where the famine and epidemics swept over almost every district, there has been a decline in its natural population in 1941-50 (allowing fully for migration after the partition), as the preliminary bulletins of the Census Commissioner for Pakistan on the 1951 census of Pakistan indicate. As the populations of East Bengal and West Bengal belong to the same stock, rather, if anything, the East Bengal branch is sturdier and less liable to malnutrition ordinarily than the West Bengal stock, it may be readily conceded that if the famine and epidemic of 1943-44 had struck all West Bengal districts with the same ferocity as in East Bengal, mortality would have been perhaps heavier than that caused by the influenza epidemic of 1918-19. On the other hand, taking the picture of India as a whole, the last thirty years have shown a greater ability to fight famines by localising them.

477. Apart from the general improvement in the death rates and infantile mortality rates caused more than anything else by an abatement of epidemic diseases and malaria since 1920, which marks off that year as the Great Divide, there has been a certain improvement in India's freedom of trade with the world. It is significant, and no mere accident, that the beginning of the period of steady population growth coincided with the great freedom struggle in 1920, which not only brought about a certain measure of self-government and release of the spirit, upon which, however, growth of population does not depend, but a definite upsurge in India's industrial organisation, a multiplication of her mills and factories. But the greatest result that this national movement achieved was the freedom to trade with other countries of the world, to break away from the chains that had tied her only to

Great Britain and British ports, which, in the course of a century and a half had stultified her agricultural production and ground down her manufactures. It was the limited right acquired after 1920 to regulate the height and impregnability of her tariff walls, the freedom to trade independently and not *via* British ports with other countries, her multicornered trade which Imperial Preference vainly tried to curb, that gave her agricultural and industrial production a fresh lease of life and a new zest. As the Secretary General of the United Nations recently (19th October 1952) put it: 'they (the under-developed countries of Asia and Africa) are still in poverty, but they have found their voice'. It is easy to over-estimate the effect of this freedom in the demographic field, but it is not easy to state adequately the measure of the stranglehold which the virtual monopoly of British trade over India's agricultural and industrial production exercised on the slow growth of India's population in the nineteenth century. During this century many agricultural produces went out of cultivation altogether or were grown in much smaller quantities than in the eighteenth century simply because they were not wanted in British ports, while India was rapidly reduced from an exporter of manufactured goods to an importer of them, proving thereby that her industries were made to give way to British manufactures. This has been discussed in respect of West Bengal in Chapter III. The new freedom gained after 1920 was, however, nothing so considerable as to affect the pace of growth of her population or to take the lid off it altogether, but it meant a release, however tardy, in her agricultural sector, while mining and manufactures grew in strength. If, as the Royal Commission on Population in Great Britain in 1949 suggested is true, that the growth of population all over the world in the eighteenth and nineteenth centuries is directly relatable to the extent to which each country participated in the Industrial Revolution and the social explosion it started and the growth of its commerce and industry, the statement seems to fit in with India also because it is only after 1920 that India properly ushered in her industrial revolution, such as it was, and entered the field of world commerce and industry on her own, and not as hitherto through the looking-glass of British ports and British shipping.

478. It also remains to be stated that more humane tenancy legislations and guiding principles adopted in the course of 1880-1910 began to bear fruit only after 1920 when the worst evils of rack-renting began to disappear. On the other hand, the progress achieved was more than counterbalanced by several retrograde pieces of legislation concerning sharecroppers in the late twenties.

479. What holds for India generally applies with particular point to West Bengal which underlines the remarks made above. The growth of its population has been on a much more subdued scale than in India as a whole. Whereas the latter grew either sporadically in certain decades or not at all in others, West Bengal registered actual declines in some periods. The Appendices printed in part I C of this Report will show that West Bengal had in 1872 almost the same population as it had had in 1794 or 1812. It should be remembered that already in the famine of 1770-72, according to the great W. W. Hunter and the celebrated Fifth Report of 1812 "35 per cent. of the total and 50 per cent. of the agricultural population had died", so that, what with the unsettled condition of land tenure and the human sacrifice made in reclaiming uncultivated, malarious, land laid waste by the famine of 1772 ("In 1771 more than one-third of the cultural land was returned in the public accounts as 'deserted' and in 1776 the entries in this column exceeded half of the whole tillage. For the first

15 years after the famine, depopulation steadily increased": W. W. Hunter and the Fifth Report quoted by R. K. Mookerji in his *Indian Land-System* in the Report of the Land Revenue Commission, Bengal, Vol. II page 214), it is extremely unlikely that in 1794 or 1812 the population would have even partially recuperated. The 1872 population of West Bengal may, therefore, be, without fear of contradiction, regarded as having been even less than its population in 1750. Thus in the course of the last two hundred years the population of West Bengal has grown very slowly, even that not steadily but sporadically, with periods of noticeable increase alternating with periods of sharp decline. All the time, however, the age-structure of the population, as Chapter VI of this Report will show, retained potentiality for increase, that is, given favourable circumstances, it would have lost no time in multiplying rapidly.

480. Francis Bernier's account of the fertility, wealth and beauty of Bengal, in his *Travels in the Mughal Empire* about 1660, published as an Appendix in Part I C of this Report, gives an account of the variety of important commercial crops grown in Bengal and the range of its manufactures. This account was elaborated and brought up to the end of the 18th century by H. T. Colebrooke. His *Remarks on the Husbandry and Commerce of Bengal*, published as another Appendix in Part I C of this Report, is the most authentic and comprehensive testimony to the state of agriculture, trade and manufacture in this country at the time of the much debated Permanent Settlement. Colebrooke's account will help the interested reader to assess how rapidly the cultivation of commercial crops in the State dwindled or ceased, and how few new substitutes replaced them. In the field of trade, industry and manufacture again, his account will bear out much that has been recorded in Chapter III of this Report and is particularly valuable as showing how trade, industry and manufacture dwindled under the withering wand of British commercial and manufacturing interests. Already in the last quarter of the eighteenth century, following the first steps of the Industrial Revolution in Great Britain, the East India Company was extremely active in imposing ban after ban on exports from Bengal. These bans are recorded with clock-work monotony in the Minutes of the Court of Directors of the East India Company. An idea of the huge proportions which exports of industrial manufacture out of Bengal to the United Kingdom and Europe in the bottoms of European trading companies had assumed in the seventeenth century is available from the *First Letter Book of the East India Company, 1600—1619*, compiled by George Birdwood and Williams Foster and published in 1903, and *Commercial Relations Between India and England (1601-1757)* by Bal Krishna published in 1924. Colebrooke's account, therefore, comes at a stage when the axe was already vigorously at work, severing the tap roots of trade and the farflung sinews of raw material processing. It is pathetic to note in this Appendix Colebrooke's solicitude for the husbandry and industry of the country he so dearly loved and so profoundly respected, and who, according to Max Muller, was the father of modern Sanksrit scholarship in the West, and the very many subterfuges and loopholes he suggests to preserve Bengal's agriculture and industry from the withering touch of the East India Company's trade policy. Whereas in the sixteenth, seventeenth and the first half of the eighteenth centuries, according to Jadunath Sarkar, "the European exporters gave a tremendous impetus to industrial production in Bengal"; "this huge influx of silver effected a sudden and profound change in Bengal's economy"; "the new trade began also, but very imperceptibly and slowly, to sap the foundations of our cultural isolation",

and the isolation of East Bengal, the great crop bearing area, "was fully and finally broken" (*The History of Bengal, Editor* Jadunath Sarkar, Dacca, 1948, Vol. II, pp. 216-228), there started in the second half of the eighteenth century, a process which continued throughout the nineteenth century up to the 1920's, a period of rapid decay of industrial production and unhappy agricultural conditions. Since the dawn of recorded history, the principal source of revenue of kingdoms in Bengal has been the collection of customs, excise, and octroi and other trade imposts. But thanks to the policy of the East India Company this source dwindled and threatened to dry up, and Imperial Preference in practice after the transfer in 1859 did little, except under persistent Indian pressure, to resuscitate it. This is very forcibly brought out in the following extract from Edward de Warren's, *British India, 1843-44,* reviewed in *The Calcutta Review*, Vol. V, 1846, at p. 345. The rviewer, an Englishman, observed that 'it must be admitted however that there is some truth in De Warren's remarks on the injustice with which India is treated in respect of the restrictive duties on her produce':

> No branch of Revenue in India in the hands of a wise, a liberal, or even a commonly clear-sighted Government ought to be more fruitful (than the customs). The degree of expansion which it might almost immediately attain is incalculable, and yet nevertheless it languishes and declines more and more from day to day. We may find the reason of this, in the persevering iniquity, the monstrous egotism of England, whose Parliament, to satisfy the cupidity of the manufacturing interests, pass laws, which compel their Indian Subjects to receive into their ports, the produce of England at an almost nominal duty of two or three per cent., whilst the articles manufactured by the same subjects are only admitted into the ports of Great Britain on paying a duty of *from thirty to a thousand per cent.*

481. Apologies are hardly needed for this brief reference to an earlier historic period, for, indeed, for a deeper understanding of the malaise in West Bengal's population since the official census began in 1872 it is important to understand how sustenance has fared earlier and later, how both agriculture and industry rapidly declined from the last quarter of the eighteenth century, how the decline in the agricultural sector was facilitated by the Permanent Settlement of 1793 and the events immediately preceding it; how the decline in the industrial sector was engineered by the trade policy of the East India Company and the British Parliament: and how the decline in both agriculture and industry was quickly brought about by the East India Company, and later the British Government, monopolising the entire export and import trade of this country, through the agency of British shipping. As a consequence, Bengal was reduced to producing on the field or in the factory barely (*a*) what was needed to keep its population alive after a fashion and (*b*) wanted by the British as a counter for their trade with the rest of the world. For this reason a fairly full note on the Permanent Settlement is inserted by way of Preliminary Remarks in Chapter IV which will assist the lay reader but may be passed over by those who know.

Concluding Remarks

482. It may, therefore, be generally agreed that while up to 1920 the State's population was inhibited from growing in a normal manner by epidemics and malaria and by the limitations imposed on her agriculture and industry by injurious laws and tariffs, after 1920, and especially after 1947, many of them having disappeared, the country, 'while still in poverty has found its voice', and West Bengal's population may have a less inhibited growth, in spite of the fact that the state of her agriculture and industry, 'although dangerously low, is still falling'. The fact that a national government must take serious notice of famine or scarcity pockets, and is in honour bound to prevent death by starvation, and that, according to the

Secretary General of the United Nations, the poverty of hundreds of millions of people in Asia and Africa is recognised by the United Nations as 'one of the great challenges of our civilisation' (M. Trygve Lie's speech of 19th October 1952 reported in *The Statesman* of 21 October 1952, see above), to meet which a World food pool is more or less on the alert, will make unlikely a repetition of the devastating famines which have so far visited the State in the eighteenth and nineteenth centuries. It is a curious fallacy that sticks persistently in the public notion that Bengal was more liable to famines before 1757 than after, a notion, sadly but curiously enough engendered by certain remarks of Ramesh Chandra Dutt concerning the Permanent Settlement,—a notion which Dutt himself would doubtless have been one of the first to dispel—that one of the blessings in permanently settled areas is their comparative immunity from famines. Nothing, as has been discussed in Chapter IV, could be further from the truth as the period 1765-1919 saw the most crowded succession of famines and epidemics in recorded history in the last several centuries. But although widespread scarcity and near-famine conditions have come to stay almost as an annual event in the last five years, it is significant that deaths by starvation have been minimum or none at all. The result has of course been a degradation of national health affecting all spheres of production but not that sudden decimation which a famine alone can reap. And it must be remembered that almost an unfailing consequence of a famine is that a population so affected recuperates and exceeds its pre-famine strength rather more rapidly than it would have done had it not suffered that way.

483. It is easy to belittle the progress made in improving the health services of the State and, indeed, the Government itself does not claim that it has touched more than a fringe of the problem. But they certainly deserve to be complimented for the efficiency with which the veteran epidemics of cholera and small-pox are combated and reduced in a short space of time whenever they raise their ugly heads. With so little money spent on protected water supply in rural areas, sanitation, isolation of infected cases and the present dismally low standard of housing, living and food it is idle to wish that preventive and curative measures alone will rid the country of recurrent epidemics. The state of the water supply cannot but preserve cholera as an endemic, while the state of sanitation and mode of treating infected cases cannot extirpate small-pox however efficient and thorough-going a State's programme of compulsory vaccination may be. Nevertheless the skill and efficiency which the public health services in this State have reached in dealing with these two scourges cannot fail to earn a compliment, when it is recalled that the virulence of these pestilences has been nothing in the last thirty years compared to what it used to be in an earlier period. The manner in which plague was swiftly localised and stamped out in the city of Calcutta in 1948-49, where every circumstance was congenial to its rapid propagation, is a good enough testimony to the efficiency of the public health services. In short, not a little of the rapid increase of population since 1920 is due, as any reader of this chapter will doubtless agree, to the improvement of the public health services. But the latter can make very little headway where the present low standards of living, nutrition, water supply and sanitation are concerned, which on any showing continue to be abjectly substandard. In 1885, after the first great strides had been made in enforcing preventive measures against epidemics and in achieving minimum standards of housing, water supply and ventilation, Great Britain had a Royal Commission

on the Housing of the Working Classes. This Royal Commission appalled by the horror of living conditions in working-class areas addressed itself the question: 'Is it the pig that makes the stye or the stye the pig?' It concluded that it was more the stye that made the pig than the pig the stye, and that if the stye could be improved, the pig, too, would change into a nobler animal. Perhaps the Royal Commission when using the word 'pig' thought not merely of its unclean habits but of the rapid pace at which this brute propagates its species.

484. The Census Department of West Bengal has published an account of Vital Statistics in West Bengal for 1941-50 (by P. G. Chowdhury and A. Mitra) as Part IB of this Report which contains a brief survey of this 'stye' to which the present state of (*a*) food production, (*b*) roads, (*c*) protected water supply, (*d*) housing in crowded areas, and (*e*) diet contribute very liberally. The Introduction to this Report and this chapter provide the background of this problem from the ecological and demographic points of view. It remains to be noted that two scourges still elude the public health worker, scourges that are not so amenable to shock attacks, but being intimately connected with the problems of nutrition, sanitation and land management continue to give trouble, while one at least assumes graver and graver proportions as time passes. These are malaria and tuberculosis and allied wasting diseases. All expert opinions are unanimous that tuberculosis is on the increase not only in, cities but also in rural areas where it used to be very rare until recently. Deterioration in nutrition, housing and ventilation is held to be the principal reason, which at once throws the window open on to a depressing scene. As for malaria, although the general position has very considerably improved it has always been present in the State but its associated causes were not investigated until the great Burdwan Fever raged in West Bengal. It is to C. A. Bentley, Director of Public Health in the State in the 1920's and to his book *Malaria and Agriculture in Bengal: How to Reduce Malaria in Bengal by Irrigation* (1925), of course, that the country owes its knowledge of how intimate is the relation between the removal of malaria and drainage of swamps and damp areas, irrigation by the controlling of floods and rainwater, the need of throwing open scrub jungle and waste areas to cultivation, thereby ridding such places of water-logging. But it should be pointed out that C. A. Bentley did not propound anything that had been unknown. He merely put the right emphasis on the right thing. That malaria ought to recede and disappear with drainage of swamps, flood-irrigation of flat countries, the destruction of damp scrub jungles and wastes, and the extension of orderly cultivation and husbandry was advanced with an abundance of illustration and great point as early as 1863 by J. Elliot in his *Report on Epidemic, Remittent and Intermittent Fever occurring in Parts of Burdwan and Nuddea Divisions.* A further *Report on the Fever at Burdwan* in 1872 by J. Jackson and the famous memorandum on the decay of Kashimbazar and Hooghly by Raja Degumber Mitter in 1864 had already appeared for the benefit of the last century. But little has so far been done although in Italy under Mussolini in 1928-33 spectacular results were achieved in a very short time in the Pontine Ager, the Sabaudia, the Littoria, the Maccarese and the Sele. [For a ready and fairly detailed account the reader is referred to *Land-Reclamation in Italy* by Cesare Longobardi, 1936.] But it does not do to underestimate the effect of anti-malarial sprayings already conducted in four very malarious districts since 1948, where there are signs that malaria has been effectively checked, if only for the time being. The Mayurakshi and Damodar River Valley projects, however, hold out great promise for these

extermination of malaria in the Burdwan Division while the salvation of the central and lower sections of the Presidency Division seems to lie in the building of the Ganges Barrage at Farakka below Rajmahal.

485. In 1842, three years after a Committee for the establishment of a Fever Hospital in Calcutta had been appointed by the Governor of Bengal, Edwin Chadwick, a great name in the history of English public health, submitted his Report of an Enquiry into the Sanitary Condition of the Labouring Population of Great Britain. He made the following observations which apply with particular force and poignancy to present conditions in our country and put the finger on our malady. These points had of course been made earlier by Malthus, but whereas Malthus's dissertation was wholly gloomy, Chadwick's language betrays great determination to alter the state of affairs he had found the country in:

> That the various forms of epidemic, endemic and other disease caused, or aggravated, or propagated chiefly amongst the labouring classes by atmospheric impurities produced by decomposing animal and vegetable substances by damp and filth and close and over-crowded dwellings prevail amongst the population in every part of the Kingdom, whether dwelling in separate houses, in rural villages, in small towns, in the larger towns—as they have been found to prevail in the lowest districts of the metropolis.
>
> That such disease, wherever its attacks are frequent is always found in connexion with the physical circumstances above specified, and that where those circumstances are removed by drainage, proper cleansing, better ventilation and other means of diminishing atmospheric impurity, the frequency and intensity of such disease is found to be abated; and where the removal of the noxious agencies appears to be complete, such disease almost entirely disappears.
>
> That the formation of all habits of cleanliness is obstructed by defective supplies of water.
>
> That the annual loss of life from filth and bad ventilation is greater than the loss from death or wounds in any wars in which the country has been engaged in modern times.
>
> That the ravages of epidemics and other diseases do not diminish but tend to increase the pressure of population.
>
> That in the districts where the mortality is the greatest the births are not only sufficient to replace the numbers removed by death, but to add to the population.
>
> That the younger population bred under noxious physical agencies, are inferior in physical organisation and general health to a population preserved from the presence of such agencies.
>
> That these adverse circumstances tend to produce an adult population short-lived, improvident, reckless,and intemperate, and with habitual avidity for sensual gratifications.
>
> That the primary and most important measures and, at the same time, the most practicable, and within the recognised province of public administration, are drainage, the removal of all refuse of habitations, streets and roads and the improvement of the supplies of water.
>
> That the expense of public drainage, of supplies of water laid on in houses, and of means of improved cleansing would be a pecuniary gain, by diminishing the existing charges attendant on sickness and premature mortality.

486. Francis Buchanan-Hamilton, who in the first decade of the 19th century was authorised by the Governor-General to prepare a statistical account of all aspects of Bengal districts, and whose meticulous reports are quoted with the most profound respect by all experts whether in botany or zoology, geology or demography, and whose remarks 'On the population of the district of Dinajpur and the causes which operate on its increase or diminution' are printed as an Appendix in Part IC of this Report, marvelled at the 'overwhelming population' of that district, and recounted all the factors, which still hold good today, operating on its increase. As for the causes which operated on its diminution, the reasons ascribed by him still obtain today and will bear repetition here. Says Buchanan-Hamilton:

> The grand check, however, to the excess of population is disease, which makes ample room, and fever annually sweeps away immense numbers; although I do not think that any means would ever render Dinajpur a country remarkably salubrious, yet I am persuaded, that the excessive prevalence of fever is more owing to the want of stimulating diet, and of comfortable lodging and clothing, the consequence of poverty, than to any extraordinary degree of malignity in the air.

487. The problem of population cannot be solved by letting large numbers of people die. This has not stopped the world's population from growing in the past, and it is now fairly established that this is not the way to limit the world's population in the future. The only way to control the population is to keep the existing number healthy and comfortable with a good standard of living, and only when these standards are achieved that the birth rate falls; the death rate alone cannot make much headway in limiting the world's ills. It is poverty and lack of standards that keep the birth rate high; this is one of Nature's ways of replenishing waste: if there is more waste, Nature replenishes more quickly; if there is less waste, Nature replenishes less quickly. A higher death rate is almost immediately followed by a higher birth rate. A falling death rate means a higher standard of living and eventually brings about a lower birth rate. Thus better health and food reduce mortality which ultimately is instrumental to a reduction of the birth rate. There seems to be very little short cut out of a rapidly increasing population, except by increasing the prosperity of the population in question.

488. But in the present circumstances it looks as if it will be a long time before Nature's laws operate in this country. It will take a long time at the present rate to upgrade the standard of living of the common man. If India can grow more food the immediate effect will be a rapid increase in population, as has been the case in England, America and every other country in the 18th century, caused by a falling death rate on account of better nutrition and medical care. Already the birth rate is very high by any standards and it is improbable that this very high rate, which has obtained for at least eighty years, can be very much exceeded. But it is also improbable that the birth rate will fall suddenly and steeply. It is only after this stage of rapid increase is worked off that we can expect a falling birth rate. But India can ill afford to go through the whole cycle. Experts, therefore, consider that at the same time that food is increased together with the standard of living, it is essential to try to control the birth rate to some degree and to disseminate knowledge about family planning, or as it is popularly known, birth control. Although it hardly appeals to the masses of our country, it is worth recalling that as long ago as 1923 the All-India Women's Conference passed a resolution urging birth control to be included in the municipal health services. In 1938 the Indian National Congress appointed a committee which approved of family planning. Mrs. Margaret Sanger, a pioneer in the cause of birth control in the U. S. A., once said that during her visit to India she was very much impressed by the attitude of Indian women whom she found in favour of birth control. She interviewed Mahatma Gandhi who, however, did not believe in artificial birth control, but thought that husband and wife should separate after they had had a number of children. It is often said that our *primitive* people will have nothing to do with family limitation in any form. But anyone who keeps contact with that people tells a different story; the womenfolk especially frequently ask for information on the spacing of children. The whole problem, however, is not so simple as distribution of birth control clinics all over the country. It involves problems which go to the roots of society deserving to be studied in all its aspects.

489. The roots are the sources of sustenance, which again are agriculture and industry. As for agriculture an examination of its present state has been attempted in Chapter IV which reveals that on any showing agriculture today is in a worse plight than a hundred and fifty years ago. As has been shown in the section on livelihood pattern it certainly sustains a

diminishing proportion of self-supporting persons today compared to previous decades. This is a very different conclusion from what one might draw about the state of agriculture in Europe, America or Australia, or even Japan and Turkey for the same period. There has been a great deal of back sliding, and instead of a steady conquest of the vagaries of Nature, that *la belle dame sans merci* seems to hold agriculture in thrall more strongly today than ever before. Irrigation is a matter which does not depend upon individual enterprise entirely, and the extent of irrigational facilities that a government provides or maintains is an index of its beneficent activity and also of the bond that unites it with its people. A peep into the past and present state of irrigation has been taken in the Introduction (pp. 69-74), it is unnecessary to go over it again. But the following extract from a Resolution of the Governor-General-in-Council of the 16th January 1902, quoted *in extenso* in Chapter IV, states in unequivocal language the utter lack of any conquest over Nature and the abject dependence of all agricultural activity on rainfall. But what is more significant about it is that it still largely holds good to this day, after the lapse of half a century:

> The relation of cause and effect between a good rainfall, abundant crops, and agricultural prosperity, is not more obvious than is that between a bad monsoon, deficient produce, and a suffering people. When the vast majority of the inhabitants of a country are dependent upon an industry which is itself dependent upon the rainfall, it is clear that a failure of the latter must unfavourably, and in extreme cases calamitously, affect the entire agricultural community. The suspension of the rains means a suspension of labour; a suspension of labour means a drying up of the means of subsistence; and the latter is necessarily followed by distress and destitution. . . . It has been estimated that in the Central Provinces the agricultural classes have lost 40 crores of rupees (Rs. 400 million), or more than 26 millions sterling, during the past seven years—an amount equivalent to the total land revenue of 50 years: while seven years' land revenue would be required to recoup the State (of undivided India) for its famine expenditure in these provinces since the year 1896. Similar calculations could be made with regard to the other famine smitten provinces.

490. This appalling statement insinuates a great deal more than the brutal truth it tells. In the permanently settled areas the Government handed down to the zemindar, and absolved itself of, the responsibility of land reclamation, land improvement and irrigation, while it took care to fix in 1793 the revenue on the capitalised value of all future improvements. It evolved a system of *pulbandi* by which if the permanently settled zemindar failed to maintain embankments and irrigation channels, none other than those that already existed in the beginning of the 19th century, the Government itself could intervene and repair them, realising the cost from the zemindar. On the other hand, where those embankments and channels that had come down from Mughal times and tradition indicated that it was the duty of the Government to maintain in conjunction with the zemindar, the former was content to leave their maintenance to the latter with an arrangement to share the expenses with him. Such an arrangement has worked unsatisfactorily with the result that all embankments and channels under the *pulbandi* system have fallen into decay and are now a serious yearly menace to crops in the surrounding areas. Many embankments have burst or crumbled, while irrigation channels, denied periodical dredging, have raised their beds and flood the countryside. This is a point which has hardly been adequately emphasised even by critics of the Permanent Settlement: that while in the permanently settled areas, responsibility for irrigation having developed mainly upon the landlord, irrigation has been generally neglected and the extent of irrigated land is ridiculously small, in temporarily settled ryotwari States, like Madras and Bombay and the periodically settled States like Punjab (I) and Uttar Pradesh, where the Government has been required to

assume responsibility for land reclamation, improvement and irrigation, the extent of irrigation (both Government and private) has been far greater both absolutely and proportionately. And irrigation is a means of conquering Nature.

491. The other causes why agriculture remains unprofitable are to be found in the subinfeudation and multiplication of non-cultivating interests in land, the fragmentation and infinitesimal size of holdings, the denial of rights to those who actually till and produce the crop, and the low market for agricultural produce. These are detailed in Chapter IV and it will suffice here to state that while on the one hand there is no incentive to improve production, on the other hand, *pari passu*, parasitic existence on whatever is produced grows. Until holdings are more compact, there will always be great difficulties in introducing effective schemes of irrigation or in improving the type of agricultural instrument employed; expenses over manure, better seed, more water, better implements, will not earn proportionate profits. It must be the despair born of turning this puzzle over and over in their mind that drove two Indian Civil Servants, J. M. Pringle and A. H. Kemm, in their Report on the Settlement of Nadia district, to exclaim: "These (consolidation of holdings and prevention of fragmentation of plots) merely touch the outer fringe of what is in fact in a somewhat unusual form that old conundrum at the heart of all economic production, namely, how to reconcile Capitalism with the welfare of the workers." (*Final Report on the Survey and Settlement Operations in the District of Nadia, 1918-1926*, 1928, p. 51.) In the ultimate analysis, it is pretty irrefutable that what is required is a daily increasing production whose exigencies cannot be met by allowing a few individuals to regulate it according to their whims and private interests or ignorantly to exhaust the powers of the soil. The diminution of agricultural produce springing from individual abuse ceases to be possible as soon as cultivation is carried on under the control, at the cost, and for the benefit of the nation. Merely to nationalise the land and let it out in small plots to individuals would only bring about a reckless competition amongst them, and cause a certain increase of 'Rent', and thus lend new facilities to the appropriators for feeding upon the producers: *this is what the Permanent Settlement virtually amounted to.* The scientific knowledge now available, and the technical means of agriculture the human race commands, such as machinery, etc., never can be successfully applied, but by cultivating the land on a large scale.

492. But that is a long, long way, and in between wait the consolidation of holdings, bestowal of incentive-carrying rights upon the tiller, and the elimination of non-cultivating interests. That ryotwari settlement was native to the genius of the State will be seen from the extracts from the *Ain-i-Akbari* quoted as an Appendix in Part IC of this Report. The next step possibly would be the application of modern methods such as irrigation, drainage, power-ploughing, chemical treatment, etc., on large co-operative or corporate farms. But every step forward spells out the need of drawing off the surplus population away from land to industries and manufactures and lessening the premium on land. As will be discussed in Chapter III there is little pull in this direction at the present moment. But certain agricultural and horticultural processes could, without much difficulty, be linked with medium industries with a minimum of adjustment, and in this effort history could be our guide.

493. The Appendices printed in Part IC of this Report give an account of the many crops and fruits obtaining in the times of Akbar to Cornwallis that are ceasing to grow in the State. The most

neglected seems to be fruit and there is no reason why some of the fruits which Abul-Fazl or Bernier or Colebrooke mentioned should not be grown again on a commercial scale, on lands, which do not grow corn, and give a fillip to the fruitcanning and preserving trade. Abul-Fazl mentions "many kinds of indigenous fruits", "a great abundance of oranges", "a fruit called *Suntara* in colour like an orange but large and very sweet", and "the china root" (*Ain-i-Akbari*, by H. S. Jarrett and J. N. Sarkar, Vol. II, pp. 136-137), while Francis Bernier mentions, "among other fruits, they preserve large citrons, such as we have in Europe, a certain delicate root about the length of *sarasaparilla* (the china root of Abul-Fazl), *amba* (mango) and pineapples, two common fruits of India, small mirobolan plums, which are excellent; lemons and ginger" (F. Bernier, *Travels in the Mughal Empire*, Vol. II. Answer to the Fourth Inquiry). He mentions preserves and sweetmeats, for which Bengal "is celebrated" and are articles of "considerable trade". As regards the money crops the list found in Bernier and Colebrooke is a large one and there is no reason why they cannot be restored, to which the progress of science can add many more, thus helping the establishment of industries which will use them. Few of them are processed finally for a world market today, and a big industry could grow out of each.

494. In the other field of non-agricultural livelihoods, that is industry, commerce, transport and services, the aggregate livelihood of the people has not kept pace with the growth of population. It is lagging behind quite appreciably, as has been illustrated in the section on livelihood pattern in this chapter (paras. 441-3) and also in chapter V. More significant than the decline in the aggregate of non-agricultural livelihoods is the fearful pace with which the proportion of female earners has diminished since 1911, as has been illustrated in Chapter V, and the far-reaching sociological as well as economic changes and tensions this decline has brought about in West Bengal. The days of the independent worker with a small capital are also getting increasingly difficult. This cannot fail to disturb very profoundly and serve as a challenge to those who have been charged with the future of the State.

495. The indications, once again are that the population will increase more rapidly than in the past and the problem is to find employment and sustenance for the growing population. As will be seen, this problem has scarcely been tackled so far and it has been allowed to grow more and still more serious owing to the diminishing livelihood agriculture and industry provide with the passage of time. In bringing this brief discussion to a close the writer can do no better than quote at length from a very illuminating address delivered on the 7th March 1950 by Sardar K. M. Panikkar inaugurating the Indian Institute for Population Studies at Annamalai University in Chidambaram. The address is especially valuable in respect of West Bengal with her truncated territory, her large sudden influx of Displaced population, her heavy concentration of population in a very small area, her large undeveloped poor-yielding areas, and her recently devised river valley and barrage projects:

> Though the problems connected with population are thus fundamental, their scientific study is of recent origin. Its immense significance came like a flash to an English parson who was deeply concerned with the tremendous growth of population in England following the Industrial Revolution and the apparent inability of the English acreage to provide food for its inhabitants. Before the Industrial Revolution England was self-supporting in foodgrains. With the tremendous increase in her population which the new industries brought in their wake, the little island was unable to provide adequate food supplies. This is the problem that faced Malthus, whose theory of the ratio of increase in population and food fell like a thunderbolt on the glowing optimism of the 19th century. In its essentials the Malthusian theory was simple. It postulated that population

increased by geometrical progression and had no limits and that so far as food was concerned its production increased only at a much lower rate and had definite limits due to the area of cultivation available to men. The theory was branded as pessimistic. Certainly the history of the century that has passed since Malthus enunciated his theory seemed to falsify his prophecies. The opening of new areas, the application of science to agriculture, both for increased production and for preventing the decay of land, and recovering it for use where the law of decreasing returns had begun to operate, and the utilisation of new products seemed to nullify the logic of Malthus. But has the Malthusian doctrine been finally disproved? The claim for living space, which became a national slogan with the most populous nation of Europe, Germany, the insistent demand for territorial outlets, which Italy, lacking the natural resources of other nations, has put forward ever since she became a united nation, and the pressure of the population on land which drove Japan overseas—all these show that we can shut our eyes to the Malthusian dilemma only at great peril to the future.

In India especially the problem has acquired an urgency which is only now being recognised. In the course of a century the population of India has more than doubled itself. In 1851, it is calculated that India had only 150 million people. According to the census of 1941, the same area had to bear no less than 388 millions. After the secession of the provinces which now constitute Pakistan, the pressure has become even greater. A larger percentage of the grain growing areas has fallen to the lot of Pakistan. Thus the problem of feeding India's population, which was growing more and more difficult with every passing year that saw increase of five millions to the population, became suddenly the dominating fact in our life.

It is unnecessary for me to emphasise how overriding this problem of population has become. The very future of our country as a progressive, independent nation now depends on the way we are able to tackle the inter-related problems of food and population.

I have heard it stated often that India is overpopulated and that the optimum of population in relation to our food resources has long been reached. Though I can only speak as a layman, it is obvious that the unbalance in our population lies in its spatial distribution. While there are some areas in India, especially the deltaic regions and the Gangetic Valley which are overpopulated, there are vast territories in Rajputana, in Central India and even in the Deccan where the density is meagre. Though our food production is now substantially below our requirements, it is well known that many million acres of land await to be reclaimed in India. Also, food experts are dinning into our ears the undoubted fact that our agriculture remains in many ways primitive and the yield per acre is the smallest in the world. Clearly, what we require is a population policy which will take into consideration the problems of spatial adjustment and a long period programme in respect of food production which will bring the abandoned lands under the plough, and also by improved methods change the quality of land and make it yield more. The inexorable logic of facts has forced the Government to take in hand a comprehensive policy with regard to land and production. But the related problem of a population policy, without which we cannot succeed, seems to have been lost sight of.

It is obvious that when our large schemes of irrigation begin to materialise, this problem of the spatial distribution of population will force itself on the Government. Speaking on the basis of some experience of large scale canal irrigation in Bikaner, I can say without hesitation that the problem of populating the new irrigation colonies with cultivators prepared to put their labour and knowledge into the land will be an extremely difficult one, unless it is planned beforehand. We know for example that lands in Bhawalpur could not be sold for many years after water had become available. In Ganganagar Colony in the state of Bikaner some of the land was taken up only 10 years after the irrigation scheme was in operation and these were areas bordering on the Punjab where the people had a long background of farming in irrigated colonies. Our large scale irrigation schemes, Bhakra, Damodar Valley, Hirakud and Chambal, will within a few years begin to supply water, but it is futile to think that people will rush to these areas to buy land and settle down and begin to produce food which we so urgently need. It will be nothing less than political madness to leave these colonies to be filled up haphazard. In the first place, it may take years or even decades before the colonies get fully populated. Secondly, unless it is planned beforehand, land may even go into the hands of speculators and other unproductive clans and the great schemes on which so much depends may not yield us the maximum results.

The urgent necessity for a population policy in India is therefore clear. It will have to be formulated in terms of our industrial and agricultural programmes, with a view both to create a balance and to relieve the strain in areas which are undoubtedly overpopulated. The basic problems which we shall have to consider in laying down our policy may briefly be touched upon here. In the first place, we have to relate our population to regional resources to enquire and discover the causes for the immobility of our agricultural classes, the social bonds that tie them to particular areas and the factors which may be brought into play to encourage movement among them. Secondly, we have to study the problem in relation to the pressure on land, the food habits and other factors which tend to make our food-population relationship a rigid one. A third aspect of the problem which has also to be studied carefully is the relationship of climatic factors to human energy. It is well known that the moist monsoon belt has the largest density of population, accounting for very nearly a fourth of the human race. It is equally a well known fact that the population of the monsoon belt is physically the most enervated, comparatively less capable of energy and more subject to diseases. Climatology is an essential branch of the science of population.

There are of course other and better known aspects of the population problem such as fertility and mortality, the curious fact of the underdeveloped groups being the sources of population increase, the rural-urban differentiation and the possibility of an artificial control of birth rate. Whether a general ecological law could be evolved out of ascertained facts and whether by the natural operation of social forces the balance of population gets adjusted automatically are also matters for enquiry.

CHAPTER II

RURAL POPULATION

SECTION 1

PRELIMINARY REMARKS

THE STATISTICS pertaining to this Chapter are those mentioned in the opening paragraph of Chapter I. In addition Subsidiary Tables printed in Part IC of this Report show:

- II.1. Distribution of Population between Villages;
- II.2. Variation and Density of Rural Population;
- II.3. Mean Decennial Growth Rates during three decades of Rural Population; and
- II.4. Livelihood Pattern of Rural Population.

The census definition of the village which is synonymous with the cadastrally surveyed *mauza* of settlement operations in West Bengal, except for certain portions in Darjeeling District and the State of Sikkim, will be found in section 1 of Chapter I. Before 1911 a village used to be a residential village and, as has already been explained, a residential village in West Bengal did not by its layout afford comparability from decade to decade. The *mauza*, as the working definition of a village, was accepted for the first time in 1911 and thereafter has been in continuous use. Descriptions of various types of residential villages are available in pages 43-45 of L. S. S. O'Malley's Census Report for 1911. The confusion that the residential village created for the census was summarised by E. A. Gait in his Administrative Report for 1901 (page 2) as follows:

> There is no guarantee that the definition has been rightly or uniformly applied even now, or that a fresh inquiry would not result in many of the so-called hamlets being classed as villages and many of the villages transferred to the category of hamlets. And if it is difficult now to decide precisely what constitutes a residential village, it will be still more so ten years hence to say what was treated as a village at the present census. In the course of ten years many existing villages will have disappeared or changed their names, while new ones will have sprung up; large villages will have absorbed their smaller neighbours, and hamlets will have grown to the status of separate villages. Detailed comparison between the results of the two censuses is thus impossible where the residential village is taken as the unit.

Gait then proceeds to record:

> Where the *mauza* is not well known, the residential village must perforce hold its own as the census unit. In a good many districts, however, it was decided to give up the residential village and adopt the survey *mauza* as the census unit. This was the case wherever there had been a cadastral survey, and also in one or two districts where the local divisions of area were easily identified. In some other districts it was found that the revenue *mauza* is still well known, and here although the original definition remained unaltered, the village census tables have been prepared with reference to the survey *mauza* by totalling the figures for the residential villages shown against each *mauza*. At the next census, I think that the *mauza* might be more often taken as the census village. (*Ibid.*, pages 2-3.)

2. The Superintendent for 1921, W. H. Thompson, was also a distinguished Settlement Officer of Bengal and as such his arguments in favour of the acceptance of the *mauza* as the definition of the census village have a special value. No apology, therefore, is needed for quoting at length from pages 124-6 of his Report which runs as follows:

> The word village in the sense in which it is ordinarily understood in India, and indeed in all parts of the world, should not be used without qualification in respect of rural Bengal. The picture which the word conjures up in the mind is that of a close collection of houses belonging to the cultivators and agricultural labourers employed on the land for two or three miles around, the village watchmen and the other village servants, a moneylender and a few shopkeepers and artisans, potter, cobbler, tinsmith, etc., a more pretentious house belonging to a land lord or middleman, some sort of common

meeting place frequented by the villagers and a place of public worship, a temple in a Hindu village or a mosque in a Muhammadan village. Such villages are not to be found in Bengal except in parts of Burdwan Division. They owe their origin partly to the gregarious instincts of mankind, partly to the convenience to the cultivators in living close to those who administer to the needs which their land alone does not supply and partly to the necessity for protection, in former days from predatory bands, and still in most parts of India, for cattle, if not for human beings from the wild animals infesting the uncleared spaces which come right down to the edge of the cultivated lands. The village grew up in some conveniently situated spot in a clearing, in a defensible position and near a supply of water. In Bengal the whole countryside except what is actually required for residential purposes has been brought under cultivation and the cultivators have no need to herd together for protection. The property of a landlord or middleman is usually far stretched and interspersed with the properties of others, and labourers who have not land of their own are very few indeed. In these circumstances it is not surprising to find the homesteads scattered over the whole face of the countryside. Each cultivator has selected a suitable spot for a homestead on his own land, dug a tank, or made untidy irregular excavations to obtain earth to raise a site, and built houses on it. The process is still going on. When the family grows too big for the homestead, or family quarrels ensue, one of the brothers will make a new homestead on a convenient part of the family land which has fallen to his share a little removed from the old homestead. For administrative purposes in Bengal a survey unit takes the place of the village unit elsewhere. The vernacular expression is *mauza* and it is often translated " village ", sometimes with confusing results. A century ago the word signified a parcel of land belonging to one estate, and the Revenue Surveyors seventy years ago used it in this sense in Bihar where they began work and where estates are not closely interlocked as in most parts of Bengal. Coming down into Bengal they used it with a significance altered to mean a parcel of land convenient for their survey in one block whether only one estate was included or several. Commonly their blocks were units locally recognised and treated as such, and even when they were not the landlords found it convenient to adopt them for their own purposes and the cultivators necessarily followed suit. The Revenue Survey having been made the basis of Revenue and other Administration and the foundation of all the maps used for half a century, the *mauzas* have become for all purposes the generally accepted units into which the countryside is divided. That the Settlement Department, which has up to the present prepared a record of rights for half the Province, has made use of the same units with very few changes, has further contributed to the crystallisation of the *mauza* system. The census followed the same system and the figures for the number and population of villages given in Imperial Tables I and III refer to *mauzas*, though the word " village " has been used in the headings to bring the tables for Bengal into line with those for other Provinces.

It is true that the *mauza* is the village for the purposes of the law which determines that a settled *raiyat* of a village shall have an occupancy right in all land which he holds as a *raiyat* in the village, but it is very common for a cultivator to have land in more than one *mauza*, and instances are common in which a man has most of his land in one *mauza*, which happens to be a lowlying stretch of rice field with no high land in it suitable for residential purposes, and his homestead in another. Since the *mauza* was originally a unit of size suitable for survey and since the whole country is a level plain, it might be expected that the area of the average *mauza* would be much the same everywhere, and that the population of the average *mauza* would vary according to the density of population. This is generally the case. But the Revenue Survey was done gradually. The Survey parties, which came over from Bihar into the Bengal districts adjoining, only gradually gave up the attempt to survey as a separate *mauza* each parcel belonging to a separate estate. Consequently there are many small *mauzas* to be found in Dinajpur, Malda (Rajshahi, the parts of Bogra, Pabna and Rangpur away from the Jamuna river), in Burdwan, Birbhum, Bankura, Midnapur, Hooghly (and Jessore), and this in addition to the comparatively low density of population accounts for the high proportion of rural population which is found in these districts to live in villages with less than 500 inhabitants. . . . . The census " village " was a real village only in Darjeeling, Sikkim. . . . (Chittagong Hill Tracts and Tripura State) which have not been systematically surveyed for Revenue purposes and where the inhabitants do live in close contact with one another both for protection and convenience.

3. The number of *mauzas* having remained constant since the last settlement operations for any district it might be possible to find out the nature and extent of depopulation of villages, if any, by comparing the number

of occupied villages in districts that have not been affected by the partition of 1947. But it has to be remembered that the settlement operations were not held nor finalised simultaneously in every district and as every settlement readjusts the boundaries of a certain number of *mauzas,* comparison is feasible only between post-settlement villages. The following statement, however, attempts a comparison of the number of occupied villages in each district since 1901, the differences from decade to decade being due: (*a*) to readjustments according to the settlement operations having taken place in between; (*b*) the depopulation or repopulation of a number of *mauzas* in the meantime, and (*c*) redistribution of the boundaries of districts by Government order.

STATEMENT II.1

Occupied villages in districts of West Bengal unaffected by the 1947 Partition, 1901-51

District	1951	1941	1931	1921	1911	1901
Burdwan	2,649	(S)2,703	2,631	2,811	2,769	3,662
Birbhum	2,207	2,211	(S)2,402	2,299	2,216	3,317
Bankura	3,525	3,522	3,476	(S)3,999	4,634	5,592
Midnapur	10,517	10,711	10,583	(S)10,343	11,316	8,461
Hooghly	1,906	(S)1,908	2,180	2,187	2,202	2,383
Howrah	815	(S)828	1,111	861	967	1,451
24-Parganas	3,846	(S)	..	..	..	..
Calcutta	..	..	..	..	..	..
Nadia	1,238	..	(S)	..	..	..
Murshidabad	1,901	1,897	(S)1,829	1,967	1,879	3,668
Malda	1,577	..	(S)	..	..	..
West Dinajpur	2,303	(S)	..	..	..	..
Jalpaiguri	776	..	..	..	..	..
Darjeeling	605	578	531	302	504	560
Cooch Behar	1,198	1,400	1,200	(S)1,171	1,197	1,192

Note—The letter (S) denotes that the latest Settlement Operations for the district took place some time between the previous census and the one in question.

4. It is a pity that the statement does not yield any unambiguous indication of the depopulation of villages in West Bengal. The survey *mauzas* having been adopted as the definition of the village the statistics discussed in this chapter do not furnish an idea of the number of villages going out of existence temporarily and coming to life again. They merely indicate the progress of the rural areas of West Bengal according to density of the number of persons per square mile. For an account of the number of uninhabited *mauzas* in 1951 attention is drawn to the title-page of Union Table A.I published in the Tables Volume. For an idea of what residential villages (which in modern parlance would more often than not mean a hamlet, a *tola* or *para*) were like before the idea of the *mauza* was tentatively introduced in 1901 and

fully so in 1911 the following statement is quoted from page 139 of C. J. O'donnell's Census Report for the Lower Provinces of Bengal, 1891:

STATEMENT II.2

Proportion of 10,000 persons residing in villages classified according to population, 1891

	Proportion of 10,000 persons residing in villages inhabited by						
	Less than 200 persons	200-500 persons	500-1,000 persons	1,000-2,000 persons	2,000-3,000 persons	3,000-5,000 persons	above 5,000 persons
Western Bengal (comprising Burdwan, Birbhum, Bankura, Midnapur, Hooghly and Howrah)	1,679	2,995	2,538	1,208	373	57	1,150
Jalpaiguri	2,826	6,986	74	..	..	..	114
Darjeeling	5,994	2,247	637	236	92	157	637
Cooch Behar	801	2,002	2,793	2,587	869	227	721

5. As will be presently seen the figures of the statement above do not altogether deny comparability with later years, especially for those villages which have a population over 200.

6. A great deal that concerns this chapter has already been discussed in Chapter I, for instance, growth, movement and livelihood pattern, and even births and deaths. It is unnecessary to repeat them over again. The only subject that remains to be discussed is general distribution and distribution among villages classified by size of rural population. But it may be helpful to precede this discussion with an account of the state of roads in villages.

7. It has been said that a working measure of a government's solicitude for its rural population is obtained by calculating the number of square miles served by each mile of road and railway line in the country. It is a good index inasmuch as it indicates the facilities brought to the villager for marketing his agricultural produce, improvements in marketing conditions, and the mobility afforded to him.

8. The statement below has been compiled from the Administrative Reports of the Works and Buildings Department, West Bengal. It does not include village earth roads maintained by self-governing union boards. There is hardly any road of the latter category in West Bengal which does not go out of commission for several months during the monsoon and become impassable except with difficulty in bullock-carts between June and October. Even those which are dry between November and May are sometimes difficult to negotiate by car on account of the deep parallel ruts made through the middle by bullock-carts wading through slush and mud in the wet season, thus raising too high a ridge in the middle which defies even the axle-clearance of weapon carriers. Since the cessation of World War II and the availability of jeeps for civilian use a new class of village roads has been coined by the Administration: jeepable roads. It means those roads which are negotiable by jeep during the fair weather but not in the monsoon. The writer claims experience of village roads all over West Bengal and it has been his experience that there is hardly *any* village road in the whole of the State over which a jeep can run for a mile at a stretch in July-August. Village roads, therefore, may be divided into three classes: (*a*) jeepable fair weather roads, (*b*) non-jeepable fair weather roads, and (*c*) foot tracks. Clearly, the two latter types of village roads can hardly be taken into account in the following statement which includes only those roads that are jeepable in fair weather. Most of these roads are maintained by the District Boards. Fair weather jeepable roads maintained by union boards are so few that they may be reckoned out of consideration in an account of this nature.

STATEMENT II.3

Number of square miles of territory served by each linear mile of road in 1949

State and District	W & B Roads (excluding non-motorable roads) (sq. miles)	District Board roads (excluding non-motorable roads) (sq. miles)	District Board roads (including non-motorable roads) (sq. miles)
West Bengal	**18·2**	**3·4**	**2·1**
Burdwan Division	*29·7*	*2·9*	*1·7*
Burdwan	22·4	2·4	1·5
Birbhum	159·9	2·8	1·8
Bankura	26·5	3·6	2·7
Midnapur	33·2	3·9	2·7
Hooghly	21·3	1·9	0·9
Howrah	19·4	1·7	0·5
Presidency Division	*13·1*	*3·9*	*2·5*
24-Parganas	13·4	4·1	4·1
Nadia	15·5	1·5	1.5
Murshidabad	27·6	52·7	1·3
Malda	..	2·2	2·2
West Dinajpur	14·1	5·5	2·8
Jalpaiguri	10·1	4·6	4·6
Darjeeling	4·8	8·4	3·7

9. Only roads maintained by the Works and Buildings Department have any international standards at all, while District Board roads have very little standards of maintenance. Quite often they are earth banks with or without soling raised from low fields on either side. Their surface is by no means smooth but are, more frequently, badly broken up. The following statement is published by courtesy of the Works and Buildings Department, West Bengal.

STATEMENT II.4

Abstract of roads under maintenance of Works and Buildings Department
(corrected up to 1949)

District	Length of roads in miles			
	Surfaced	Water-bound	Unmetalled	TOTAL
Burdwan	155·17	0·80	3·17	159·14
Birbhum	..	..	..	..
Bankura	61·00	38·75	0·36	100·11
Midnapur	84·96	100·40	1·62	186·98
Hooghly	45·00	10·67	1·58	57·25
Howrah	21·14	6·92	..	28·06
24-Parganas	219·21	51·30	..	270·51
Calcutta	14·28	..	..	14·28
Nadia	39·14	10·00	..	49·14
Murshidabad	..	5·50	..	5·50
Malda	..	..	..	..
West Dinajpur	16·50	..	..	16·50
Jalpaiguri	167·46	59·52	34·46	261·44
Darjeeling	106·22	138·02	87·64	331·88
TOTAL	930·08	421·88	128·83	1,480·79

NOTE—The total length of roads in Cooch Behar district is 723¼ miles of which only fraction is surfaced.

10. Thus West Bengal is deficient even in arterial roads while the district board and village feeder roads are inadequate. The extent of this deficiency can be appreciated only by comparison with other states of India and the advanced countries of the West. The following statements are borrowed from *Basic Road Statistics of India, 1948* published by the Ministry of Transport in 1949.

STATEMENT II.5

Road mileage in India and West Bengal compared with advanced countries in the West

	U.S.A. (1944)	United Kingdom (1939)	France (1938)	Indian Union (1943)	West Bengal (including Cooch Behar) (1943)
Population in millions . .	132·0	40·0	42·0	319·7	21·86
Area in thousand sq. miles .	3,027	94	213	1,241	29·6
Total mileage of roads . .	3,037,644	180,527	394,375	239,081	*12,154
Linear miles of road per sq. mile of area	1·0	1·9	1·9	0·19	0·41
Road mileage per 1,000 of population	22·7	3·9	9·4	0·75	0·56

* *Source :* Road Problems of West Bengal by Sri Kalidas Lahiri, published by Government of West Bengal in 1950.

STATEMENT II.6

Mileage of surfaced and unsurfaced roads in several States of India, 1943

(Excluding municipal roads)

State	Area in square miles	Population in thousands	Total mileage	Road mileage per 1,000 population	Road mileage per sq. mile of area
West Bengal (including Cooch Behar) . .	29,581	21,862	12,154	0·56	0·41
Madras (including States merged) . .	127,610	49,825	38,540	0·77	0·30
Bombay (including Baroda and Kolhapur)	122,732	29,114	27,765	0·95	0·23
Uttar Pradesh	106,247	55,021	31,986	0·58	0·30
Bihar	69,745	36,340	31,496	0·87	0·45
C. P. and Berar (including States merged).	130,451	20,648	12,427	0·60	0·10
East Punjab (including States merged) .	37,447	12,698	10,636	0·84	0·28
Assam	50,210	7,404	10,975	1·48	0·22
Orissa (including States merged) . .	60,507	13,975	10,789	0·77	0·18

11. The above statement shows how West Bengal with a very high density which is several times that of India as a whole has only 0·56 mile of roads per 1,000 of her population. This is the lowest for any state in India and compares unfavourably with even the figure for India as a whole (0·75).

12. The following Statement II.7 taken from the Administration Report of the Works and Buildings Department, West Bengal, for 1947-49 shows the length of road communications maintained by public authorities in West Bengal as on 31 December 1948. It is on this statement that Statement II.3 has been based.

STATEMENT II.7

Length of road communications maintained by public authorities in West Bengal as on 31st December 1948

District	Length of metalled roads maintained by the Works and Buildings Department (in miles)	Length of unmetalled roads maintained by the Works and Buildings Department (in miles)	Length of metalled roads maintained by the district boards (in miles)	Length of unmetalled roads maintained by the district boards (in miles)	Length of metalled roads maintained by the municipalities (in miles)	Length of unmetalled roads maintained by the municipalities (in miles)	Total length of metalled roads (in miles)	Total length of un metalled roads (in miles)	Grand total
Burdwan	121·0	..	443·0	1,387·0	109·1	36·2	673·1	1,423·2	2,096·3
Birbhum	1·3	9·6	250·0	728·0	28·7	..	280·0	737·6	1,017·6
Bankura	99·5	0·8	337·0	640·0	45·9	35·7	482·4	676·0	1,158·4
Midnapur	158·0	1·0	303·8	1,588·5	81·4	73·4	633·2	1,662·9	2,296·1
Hooghly	48·5	8·2	130·1	1,144·2	165·2	109·8	343·8	1,262·2	1,606·0
Howrah	28·9	..	74·9	966·4	124·7	42·8	228·5	1,009·2	1,237·7
24-Parganas	200·2	..	261·3	720·1	615·6	350·6	1,076·1	1,070·7	2,146·8
Calcutta	14·3	..	..	..	391·0	..	405·3	..	405·3
Nadia	48·9	48·3	26·6	974·9	78·4	155·8	153·9	1,179·0	1,332·9
Murshidabad	30·4	44·6	30·3	1,561·0	90·6	108·4	160·3	1,714·0	1,874·3
Malda	..	..	36·5	583·5	17·5	24·0	54·0	607·5	661·5
West Dinajpur	18·5	80·0	5·4	487·6	..	..	23·9	567·6	591·5
Jalpaiguri	224·9	35·6	219·3	301·7	9·5	5·7	453·7	343·0	796·7
Darjeeling	242·1	87·6	13·9	313·0	41·8	16·1	297·8	416·7	714·5
TOTAL	1,335·5	315·2	2,231·1	11,395·9	1,699·4	958·5	5,266·0	12,669·6	17,935·6

NOTE—Figures of the union boards under all districts have not been received and, therefore, are not shown in this statement.

13. Road development was sadly neglected in West Bengal so much so that almost every year between 1930-31 and 1946-47 with only several exceptions large unspent amounts received from the Central Road Fund merely accumulated. In a book called the *Road Problems of West Bengal* published by Authority in 1950, K. Lahiri, the author, in Table VI gives a statement of Receipts and Expenditure on Central Road Fund Account in Bengal between 1930-31 and 1946-47 in which Rs. 27,648,907 is shown as Receipts and Rs. 23,355,706 as Expenditure. This was for undivided Bengal. In Table XII the author shows that before the inception of the Central Road Fund in 1930-31 undivided Bengal used to spend an average (for the years 1923-24 to 1929-30) of Rs. 1·58 million every year as against Rs. 2·4 million in Bombay, Rs. 3·28 million in Madras, Rs. 3·64 million in Punjab, Rs. 2·13 million in Bihar and Orissa and Rs. 1·05 million in Uttar Pradesh. This tells a sorry tale of neglect in a province which has been notorious for bad roads and a very high density of population, almost as bad, if one comes to think of it, as the story of cast iron shoes which Chinese women in former times were compelled to wear to keep their insteps short. The lack of roads in West Bengal may be held directly responsible for the concentration of industries in a very small area on either side of the Hooghly river for such a long time. One could reasonably expect a more even distribution of industry at least in the Burdwan Division and 24-Parganas and Nadia if only West Bengal had more and better roads. The following statement quoted from *Basic Road Statistics of India, 1948* again shows Road Expenditure from

Provincial Revenues in different Provinces in India in 1945-46.

STATEMENT II.8

Road expenditure from provincial revenues in different provinces in India in 1945-46 (million rupees)

Province	For constructions and improvements	Maintenance and repairs	Total
Bengal . . .	1·478	4·733	6·211
Madras . . .	4·087	10·460	14·547
Bombay . .	2·794	10·056	12·850
U.P. . . .	9·794	9·875	19·669
Bihar . . .	2·271	2·528	4·799
Punjab . . .	2·849	8·678	11·527
C.P. and Berar .	·434	5·577	6·011
Orissa . . .	·272	·994	1·266
Assam . . .	·614	8·740	9·354
Sind . . .	3·627	·788	4·415
N.W.F.P. . .	·487	2·399	2·886

14. Bengal was very far behind other provinces. Of the major ones, only the Central Provinces and Berar spent less than Bengal. Bihar spent more than Bengal in new constructions but, understandably enough, spent less on maintenance and repairs. Even Assam could afford to spend far more than Bengal, although her revenue resources were only a fraction of Bengal's Expenditure depends on the scale of values and priorities a government fixes for its work, and roads certainly did not seem to command either value or priority.

15. It is only after 1947 that road construction came to acquire vital significance. The Partition broke up the road-rail system of West Bengal rather badly, especially between the regions north and south of the Ganges. The Calcutta-Siliguri railway line was intercepted by East Bengal and the alternative route is now *via* Sakrigalighat, Manihari Ghat and Katihar in the State of Bihar, involving a slow crossing of the Ganges at Sakrigalighat. The extreme easterly point of West Dinajpur, Balurghat, is nearly 93 miles from Tildanga, the northern tip of Murshidabad, and 60 miles from the nearest railhead at Kaliaganj on the Katihar-Parbatipur line. The main present need of the northern region is an arterial road to connect it with Calcutta. Further south, West Dinajpur and Malda need to be connected with Murshidabad. The distance between Malda and Tildanga is barely 20 miles as the crow flies but 150 miles by the present rail-route. There is a proposal for the construction of a barrage over the Ganges at Farakka near Tildanga with a road and railway line on it. When that materialises it may be possible to have through railway and road connexion from Calcutta to Malda and West Dinajpur. "The present task", writes K. Lahiri, "is to construct an arterial road starting from the Ganges bank over Tildanga and leading up to Balurghat *via* Malda, Gajol, Bansihari, Gangarampur and Patiram. A ferry crossing from a suitable point opposite the railway station at Tildanga would complete this connexion. A branch from this road may also connect it with the railway station Kaliaganj on the Katihar-Parbatipur railway route. This would give a rail-*cum*-road connection between Calcutta and the Central region. This communication may have to be extended later to the north to join with the Bihar-Assam Road (National Highway 31) between Purnea and Kishenganj. A road from Kaliaganj to the Bihar border *via* Raiganj, to be followed up by an extension in Bihar, may have to be provided for the purpose". The traffic to the south from Tildanga has to be taken up, one through Murshidabad to Burdwan, and the other through Berhampur and Krishnagar to Calcutta.

16. These arterial roads have to be built logically first before village roads can be taken up in earnest. The former concern defence as well as administrative convenience, and it looks as if improvement of village roads has been pushed back by the partition for another term of years. The larger framework has to be laid on the ground before feeders can issue but in the meantime a popular aspect of the case

has to be considered. "As the higher types of roads generally pass through urban areas, the large mass of villages would feel a little neglected. Some demonstrative benefits of the plan itself must therefore have to be carried to the village in the interim period as well. The Government have accordingly taken upon their immediate programme construction of a number of village roads simultaneously with their blueprint for the higher types. An annual provision of Rs. 1·5 to 2 million was made available for several years by the Food Department out of the proceeds of a special levy on foodgrains procured through their agency in the "surplus" areas; and this fund was utilised for improving important village roads in the 'surplus' districts.

"Consistent with the technical considerations for building the higher type roads in the initial stages of the Road Plan, Government have, however, undertaken a programme for village roads. A little over Rs. 5 million will be spent on "village roads" out of the Rs. 138·5 million for the whole Plan up to 1955-56. It is very likely that, with increasing demand for village roads, more of them will be taken up and the expenditure over them will be very near 10 millions before the Plan is completed.

"Besides this programme of works, entirely financed from the State Road Plan funds', the Government have also started a 'grant-in-aid' scheme for the improvement of village roads by local enterprise. Under this scheme, small road projects, generally not exceeding Rs. 15,000 each in cost, will be taken up with one-third local contribution, Government contributing the remaining two-thirds. Government intend to continue this effort and also to widen its scope if public enthusiazm takes kindly to it."

17. It will not perhaps be idle speculation to predict new settlements and villages along the national highways and major roads now under construction all over the State. Murshidabad, for instance, bids fair to be a very important district in the near future on account of the trunk roads passing through it. Malda and West Dinajpur are in for a spate of high density in the low density areas of the *Barind* through which the provincial highway has made its way. Striking progress has been made in these two districts in the course of eighteen months in 1951-52 and a length of 96 miles in West Dinajpur which the writer took to negotiate in just under 9 hours in February 1951 took him a little over 3½ hours in February of the next year. A journey by jeep from Englishbazar to Bansihari, to run the gauntlet of which even the stoutest heart would quake in 1948, was in February 1952 almost a pleasant and fast drive over hard surface all through, instead of through billowing sand worthy of caterpillar tracked tanks. The effect of new settlements along these roads will be inestimable and it is not easy for one in the city to appreciate how thoroughly the face of the country is changing in those parts.

18. The district of Burdwan has received considerable attention in the past. In Birbhum the Sultanpur-Sainthia road (11 miles) is going to provide a much needed connection with the westernmost agricultural tract of Murshidabad and a good market for their produce. In Bankura the Bankura-Ranibandh (34·5 miles), the Bankura-Taldangra-Bansa (33·5 miles) and the Taldangra-Simlapal (9 miles) roads will improve the south-western red soil tract and probably provide an impetus to agricultural and commercial enterprise in that region. In any case that region will be rescued from long years of neglect and bring its people into touch with present day life. In Midnapur the Tamluk-Contai (38 miles), the Basudebpur-Mahisadal-Sutahata coast (19 miles), the Mahisadal-Nandigram (14 miles), the Contai-Egra-Belda (37 miles) and the Contai-Digha (18 miles) roads will open up the southern zone pretty thoroughly

and improve agricultural prices. A probable result will be an intensification of the density of population per square mile in that area which is already teeming with habitation. In the north the Chandrakona-Ghatal road (27 miles) may revive and stimulate industry and agriculture in those regions. In Hooghly the Baidyabati-Tarakeswar-Champadanga road (26 miles) is certain to give a fillip to the cultivation of potato and other market produce in areas already opened up by the Tarakeswar-Sheoraphuli railway and the density in villages on either side will probably increase. In Howrah, the Mourigram-Uluberia road (14 miles) and the Howrah-Domjur-Amta road (24 miles) will likewise cause an increase in the density of population in those places and stimulate extension of garden produce. In 24-Parganas the effect of the Diamond Harbour-Kulpi-Kakdwip road (27 miles) has already been noticed in a rapid thickening of habitation on either side, while in the east the Kholapota-Baduria-Maslandpur-Habra road (19 miles) is going to settle permanently in those regions a large Displaced population which was so long in two minds whether to move away to the west. Vegetable production is bound to thrive here as well as along the Basirhat-Hasnabad (10 miles) and Basirhat-Swarupnagar (11 miles) roads. Further east the Itinda-Tentulia-Gobardanga-Gaighatta (15 miles), the Bangaon-Bagda-Boyra (21 miles), the Bagda-Sindrani (9 miles) and in the south-east the Hasnabad-Hingulganj (9 miles) roads are going to improve communications on the border as well as open up large paddy areas to better marketing facilities. These roads will serve as a stimulus to settlement of Displaced persons in those areas, to small cottage industries, and to market gardening. And if under the Ganges Barrage scheme the river Ichhamati should revive and become navigable in the upper reaches again, this entire area, so long stagnant, malarious and rather uninspiring, may, with an efficient suburban electrification scheme selling cheap power at site, look up again and throb with the life of commerce, industry, and agriculture. The soil, though damp and water-logged, is fertile and what is wanted is drainage, irrigation and roads. It is important to remember that historically, in the days when Calcutta had not been founded, this area of which Bangaon, Gaighatta, Habra, Baduria, Basirhat and Hasnabad formed the boundary on the west, was a flourishing and strong kingdom which held its own against both Dacca and Murshidabad. The road programme in this area will therefore help its natural articulation.

19. In Nadia also there will be several particularly happy connexions. These are the Krishnagar-Majdia (18 miles), the Krishnagar-Hanskhali-Bagula (12 miles) and the Bagula-Duttaphulia-Aranghata roads opening up the east up to the border and resuscitating a malarial tract formed by beds of dead or dying rivers. They will cater to a large Displaced population settled in that tract. The Chapra-Betai-Karimpur-Shikarpur road (46 miles) opening up the north of the district, important not only for security but also for the marketing of local agricultural produce, will be the fulfilment of a long-felt need. On the north-west the Krishnagar-Plassey (32 miles) and Plassey-Betai roads will form part of the arterial trunk road to the Ganges in the north.

20. This last road will be followed up at Plassey by the Plassey-Berhampur road (22 miles) into Murshidabad. Murshidabad district looks as if it will be efficiently opened up along the old roads. National Highway 34 (Calcutta-Siliguri) by the route Calcutta-Ranaghat- Krishnagar- Plassey- Berhampur-Raghunathganj-Dhulian—will include a new construction (32 miles) between Berhampur and Raghunathganj along a route west of the Bhagirathi, with a major bridge over the Bhagirathi at Khagraghat. This will open up derelict areas in Murshidabad district. The

abandoned National Highway alignment between Burdwan and Raghunathganj (*via* Palitpur, Nityanandapur, Kolagram, Morgram) will be developed as a State Highway. The Berhampur-Bhagwangola (19 miles) and the Bhagwangola-Lalgola (8 miles) roads will open up the north-north-east, while the Berhampur-Hariharchak-Jalangi (32 miles) and the Hariharchak-Raninagar-Katlamari (12 miles) roads will improve communications in the east and north-east up to the border. As a consequence marketing facilities will improve and a reduction in transport expenses will ensure better prices for crops in this area. The Berhampur-Kandi (18 miles), the Kandi-Panchthupi (9·5 miles) and the Kandi-Sultanpur (13 miles) roads will improve markets in the south-west while the Lalgola-Raghunathganj (18 miles) and Raghunathganj-Suti-Dhulian (23 miles) roads will complete a direct trunk road from Calcutta to the north-western tip of the Ganges delta.

21. The district of Malda is going to have two access roads between the north-western tip of Murshidabad district south of the Ganges and Englishbazar, the headquarters town of the former district. The Englishbazar-Manickchak-Sadarghat road (23 miles) will connect Englishbazar with Rajmahal while the Khejuriaghat-Malda-Gajol (34 miles) and the Gajol-Banshihari-Patiram-Balurghat with a branch from Bansihari connecting Kaliaganj and Raiganj roads (47·50) will complete a great trunk road from end to end in the two hitherto neglected districts. This trunk road and the Gajol-Bamangola road (10 miles) will open up a vast agricultural tract which produces much agricultural wealth and valuable fruit, the value of which it has not been possible fully to assess owing to the high freight charges inevitable in a well nigh inaccessible region. The Bansihari-Kaliaganj-Raiganj branch will connect the important centres of trade in West Dinajpur district itself; which are Balurghat, Bansihari, Kaliaganj, Raiganj and Patiram. It may be recalled that in 1810 Buchanan-Hamilton had described them as very busy and heavy centres of trade. In Jalpaiguri, the Jalpaiguri-Siliguri State Highway (27 miles) is being extended up to Haldibari and Dewanganj hat in Cooch Behar district and will improve the importance of Jalpaiguri as a residential and agricultural area while the Assam Highway through Cooch Behar is going to increase the importance of tobacco and jute of the latter district. The road project from Mainaguri on the Bihar-Assam road (National Highway 31) and Changrabandha in Cooch Behar (16 miles) also deserves special mention. These roads will provide important connection between Cooch Behar on the one hand and Jalpaiguri and Darjeeling districts on the other. In Darjeeling the Bagdogra-Kamala Tea Estate (10 miles) and Matigara-Phansidewa roads (9 miles) will improve communications in the agricultural tract of Siliguri and give an impetus to jute cultivation. The Siliguri-Gangtok road (National Highway 31A) is being rehabilitated at a cost of Rs. 3 million for the improvement of the trade route through Sikkim.

22. To A. J. King must be paid a warm tribute for having made a thorough study of the road system of West Bengal and suggested in 1939 what has been taken up after the partition. A lesser intellect would have striven after effect and originality by suggesting new alignments and new connexions, but King did not aspire after "originality". Instead, he carefully drew his finger along those roads which for centuries had served the country with the minimum of interference to drainage, commerce and agriculture. In the last quarter of the 18th century James Rennell published his Bengal Atlas (1781) showing the principal routes of trade and commerce in Bengal, and the main centres of business that flourished before and during his time. These maps must have brought plenty of grist to A. J. King's mill, and the seed certainly

did not fall in a stony place. It has been persistently maintained that in the last century and half one of the most considerable benefits that have been conferred on India is the improvement of communications. The opening up of the country by railways, the telegraph system and the improvement of already existing great trunk roads certainly helped to shorten distances and provide strategic roads for military manœuvres, the maintenance of law and order, the fighting of famines and the increase of overseas trade of the country as a whole, thereby increasing the country's dependence on manufactured goods from abroad and increasing the export of raw agricultural produce in bulk for which the railways were so eminently adapted. But shorter crosscountry roads were very much neglected at least in this State, roads that had so long brought prosperity through intercourse and trade to the village. Thus while modern communications and the road programme of the last one hundred and fifty years certainly brought about the unity of India, the deterioration of internal cross-country communications, on the other hand, brought on estrangement between neighbouring districts. As a result the far became near and the near far. The following extract from H. T. Colebrooke's *Remarks on the Husbandry and Commerce of Bengal* will bear out this point:

> At a former period the communication was better assisted. A magnificent road, from the banks of the Ghaghra or Dewa to the Brahmeputra, formed a safe and convenient communication at all seasons, in a length of four hundred miles, through countries exposed to annual inundation of the causeways and avenues, which formed this road, some remains may yet be traced. Other highways, less extensive, but communicating from town to town, facilitated intercourse between every part of the country. At present the beaten path directs the traveller; but no artificial road, nor any other accommodation, alleviates his fatigue, and his progress is altogether barred in the rainy season.
>
> That, in the short lapse of a few years, magnificent roads should have fallen into such total decay as barely to leave the trace of their former direction, and of the public inns or serais, which accommodated travellers, must be ascribed to the want of substantial and durable materials for their construction.

The whole of King's Road Plan was directed towards assisting the natural articulation of those areas which were choked up after the eighteenth century by the growth of Calcutta Industrial Area. In fact it is rather instructive how the neglect of a fine network of roads and highways, which from very early times in the history of Bengal had served to distribute and happily space centres of trade, commerce and industry all over the country with large green belts of agricultural land around each feeding them, and the contraction of trade and commerce to a small country around Calcutta, led to a rapid deterioration of those peripheral centres as well as of the roads interconnecting them. The process was interlocked: contraction of trade and commerce into the Calcutta Industrial Area hastened the dependence of the country on this area and accelerated the decay of peripheral centres, while the decay of interlinking roads, highways and waterways hastened the decay of peripheral centres and accelerated the contraction of the commercial zone. All this interfered with the flow in the arteries and "the circulation of the lymph" and brought about an oedema of the heart. King's plan wanted to resuscitate the old arteries and veins and restore circulation in them. Inasmuch as he stuck to the old alignments in the main, and the Government did not replace it with a 'new' plan, it is possible that the new road development plan will achieve a certain measure of success and help disperse centres of industry and population without creating a fresh crop of problems of drainage and interference with agriculture.

23. These roads hold out the promise of a regrouping of the Displaced population which has so long been milling round Calcutta. The population of Displaced persons forms 8·46 per cent. of the total population of the State. There

are 263,010 Displaced persons in Burdwan Division and 1,836,061 in Presidency Division. The density of population of Displaced persons alone per square mile for the State as a whole is 68 and varies from 3·5 in Bankura to 13,404 in Calcutta, as against the overall densities of 498 and 78,858 respectively in those two districts. In Birbhum and Midnapur the densities are 6·8 and 6·4 respectively, in Darjeeling 13·1, in Murshidabad 28·3, in Burdwan 35·5, in Cooch Behar 75·5, in West Dinajpur 83·4, in 24-Parganas 93, in Howrah 109·1, and in Nadia 282·9. There are 433,228 Displaced persons in Calcutta city and 527,262 in 24-Parganas, while in Calcutta Industrial Area (comprising 6 cities and 29 towns) there are 778,299 Displaced persons. That is, more than 37 per cent. of the Displaced population is contained in roughly 160 square miles of the State, and 1,461,373 or 70 per cent. of the total Displaced population are concentrated in the Calcutta Industrial Area, 24-Parganas and Nadia. A few tentative deductions are permissible from this distribution of density of Displaced persons. This population has not penetrated sufficiently the big agricultural districts of West Bengal, and only a fraction of it has engaged itself in agriculture. As has already been noticed there is a gravitation of this population in and around the capital city and the areas of greatest density offer attractions of petty trade, cottage craft, small industries, orchardry, and vegetable raising. By necessity this population must hug closely those areas which easily offer employment or help, and markets for produce and products. Penetration and settlement in big agricultural districts, comparatively unknown and distant from the border, unopened by good roads which might confer marketing facilities for produce, have not succeeded to any remarkable degree except in West Dinajpur, Cooch Behar and Malda, which are purely agricultural, and where the densities of this population are 83·4, 75·5 and 43·2 per square mile respectively. This indicates a further aggravation in West Bengal's agricultural economy, and fresh and grave problems in suburban housing, water supply, sanitation, transport, semi-urban cottage crafts, power and manual industry. This will cause a fresh severe stress and strain of masses of shifting population, if at all they shift, when the Damodar Valley and Mayurakshi projects are ready to confer benefits, and the growing pains that West Bengal may then suffer from the effects of population shifting from suburban industrial areas to new agricultural spaces are a thing to be anticipated and provided for long before the eventuality arrives. The road development plan seems to anticipate and distribute this stress and strain in the south, east and north, by reviving old centres of population, and insofar as it does so it helps directly in a solution of the problem of the Displaced population, and leaves less to do for the river valley projects. It may seem that disproportionate emphasis has been placed in this chapter on roads and their ability to effect spatial readjustments. But improvements in the sphere of agriculture and industry, releasing in its train large socio-economic forces, and the changes likely on the inauguration of river valley schemes like the Damodar, Mayurakshi and Ganges Barrage, being still in the lap of the future it is unnecessary to dwell upon them at length.

SECTION 2

GENERAL DISTRIBUTION AND DISTRIBUTION AMONG VILLAGES CLASSIFIED BY SIZE OF RURAL POPULATION

24. The general distribution of the rural population has been discussed fully in Chapter I. It remains to describe the distribution of rural population among villages classified by size of rural population.

25. The following Statement II.9 show the number per 1,000 of rural population living in villages with (*a*) a population of under 500, (*b*) 500-2,000, (*c*) 2,000-5,000 and (*d*) 5,000 and over between 1901 and 1951.

STATEMENT II.9

Number per 1,000 of rural population living in villages with population of four categories, 1901-51

(*a*) Under 500

District	1951	1941	1931	1921	1911	1901
Burdwan	197	198	279	330	295	410
Birbhum	368	364	418	471	393	570
Bankura	518	505	566	644	607	680
Midnapur	488	492	551	568	560	570
Hooghly	240	272	388	389	378	410
Howrah	44	56	179	135	162	340
24-Parganas	140	165	223	273	289	540
Nadia	187	207	254	257	227	350
Murshidabad	152	154	187	237	202	480
Malda	249	232	313	325	684	600
West Dinajpur	608	524	567	578	759	770
Jalpaiguri	70	124	76	83	463	130
Darjeeling	246	224	295	135	305	400
Cooch Behar	254	372	289	285	283	310
Sikkim	67	80	670	881	735	250

(*b*) 500 to 2,000

District	1951	1941	1931	1921	1911	1901
Burdwan	558	578	557	534	561	520
Birbhum	508	504	458	445	485	370
Bankura	439	443	409	327	338	280
Midnapur	430	420	394	376	390	400
Hooghly	552	533	482	475	508	480
Howrah	497	487	505	501	580	510
24-Parganas	576	626	564	480	500	430
Nadia	530	558	573	579	616	570
Murshidabad	457	501	532	528	526	470
Malda	473	480	395	427	292	330
West Dinajpur	360	416	350	351	214	200
Jalpaiguri	513	532	324	332	284	330
Darjeeling	424	540	616	586	454	450
Cooch Behar	563	560	563	564	587	540
Sikkim	485	478	330	119	265	340

(*c*) 2,000 to 5,000

District	1951	1941	1931	1921	1911	1901
Burdwan	182	218	154	120	140	70
Birbhum	102	109	94	75	102	50
Bankura	39	47	25	29	48	40
Midnapur	76	83	55	56	50	30
Hooghly	193	176	123	130	113	110
Howrah	321	322	238	283	258	150
24-Parganas	225	168	187	175	146	30
Nadia	187	208	159	156	140	80
Murshidabad	307	277	249	204	228	50
Malda	238	215	208	184	24	60
West Dinajpur	32	60	77	71	27	30
Jalpaiguri	296	323	379	343	228	370
Darjeeling	155	236	89	236	196	180
Cooch Behar	155	54	93	98	92	90
Sikkim	321	337	..	..	..	[illegible]

STATEMENT II.9—concld.

(d) 5,000 and over

District	1951	1941	1931	1921	1911	1901
Burdwan	63	6	10	16	4	..
Birbhum	22	23	30	9	20	10
Bankura	4	5	..	..	7	..
Midnapur	6	5	..	..	..	..
Hooghly	15	19	7	6	6	..
Howrah	138	135	78	81	..	..
24-Parganas	59	41	26	72	65	..
Nadia	96	27	14	8	17	..
Murshidabad	84	68	32	31	44	..
Malda	40	73	84	64	..	10
West Dinajpur	..	..	6	..	..	..
Jalpaiguri	121	21	221	242	25	170
Darjeeling	175	..	..	43	45	20
Cooch Behar	28	14	55	53	38	60
Sikkim	**177**	**110**	..	..	..	**90**

26. These statements confirm the observations made in the section on density in Chapter I. They indicate how villages with densities over 500 per square mile (the size of a *mauza* or village being almost uniform to the extent of about ¾ths of a square mile) tend to fluctuate in population from decade to decade, and how villages with densities less than 500 rapidly fill up and go over to the next higher class. Statement II.9 provides a gauge for the rapidly increasing density per square mile of the State and shows how with each successive decade densities increase until whole villages pass up from the lowest category to an upper category but fluctuate around a little over 500 as soon as the second class is reached.

27. Statement II.10 restates the above statements in another form and denotes percentages of *mauzas* of certain population classes to the total number of *mauzas* in West Bengal and Sikkim. This also testifies to the increasing density per square mile but does not furnish any definite clue to the depopulation of villages.

STATEMENT II.10

Percentages of mauzas of certain population classes to total number of mauzas, 1911-51

State and District	Mauzas with population of Under 500					Mauzas with population of 500 to 1,000					Mauzas with population of 1,000 to 2,000				
	1951	1941	1931	1921	1911	1951	1941	1931	1921	1911	1951	1941	1931	1921	1911
West Bengal	**67·3**	**69·4**	**75·6**	**77·8**	**81·5**	**19·7**	**19·1**	**16·5**	**14·2**	**12·1**	**9·3**	**8·4**	**6·6**	**5·9**	**4·9**
Burdwan Division . . .	*73·6*	*75·1*	*80·1*	*82·3*	*81·4*	*16·9*	*16·2*	*13·7*	*12·2*	*12·7*	*7·1*	*6·3*	*4·9*	*4·2*	*4·6*
Burdwan	52·7	56·1	63·4	68·9	64·5	27·9	26·4	22·6	20·5	22·4	14·4	12·8	10·8	8·3	10·2
Birbhum	70·6	71·3	76·8	80·1	74·2	21·1	21·0	16·9	14·4	18·1	6·4	5·7	4·9	4·6	6·0
Bankura	80·7	80·7	84·6	89·9	89·9	14·8	14·6	11·8	8·0	7·5	3·9	4·0	3·3	1·8	2·1
Midnapur	84·4	85·5	87·6	88·2	88·1	10·8	10·3	8·9	8·5	8·0	3·9	3·4	3·0	2·7	2·5
Hooghly	56·8	61·4	71·1	75·1	73·2	27·3	24·9	17·9	17·2	18·5	11·4	10·0	5·8	6·5	6·5
Howrah	19·1	21·5	51·7	42·5	45·4	32·8	34·4	27·9	31·2	29·1	30·3	20·6	13·3	16·7	18·0
Presidency Division . .	*67·0*	*62·8*	*70·2*	*72·3*	*81·6*	*24·1*	*22·4*	*17·6*	*16·6*	*11·5*	*12·9*	*10·7*	*8·6*	*7·8*	*6·2*
24-Parganas	42·2	46·2	53·9	64·3	65·0	31·4	33·4	28·7	22·3	22·7	18·8	15·6	12·8	9·3	8·9
Nadia	58·5	54·4	59·1	58·5	53·7	25·0	25·8	24·7	25·6	27·9	16·2	14·4	12·4	12·4	14·8
Murshidabad	51·1	50·1	54·3	62·3	56·3	24·6	25·4	26·1	21·5	24·1	14·6	16·2	13·3	11·7	13·5
Malda	66·1	63·9	77·4	76·7	92·2	18·9	20·1	13·0	14·2	6·3	9·9	10·8	5·0	6·1	1·3
West Dinajpur	85·7	83·1	88·2	88·6	95·0	11·8	12·3	8·4	8·0	4·0	2·2	3·9	2·7	2·7	0·8
Jalpaiguri	26·0	45·6	43·9	41·8	86·5	43·3	29·5	15·8	10·2	4·3	18·8	15·6	20·3	19·9	5·8
Darjeeling	69·9	61·9	64·2	40·7	74·2	15·2	20·6	20·9	36·1	13·7	10·4	12·1	13·0	15·9	8·7
Cooch Behar	65·0	69·1	68·2	67·1	67·1	22·0	23·1	10·6	20·3	20·3	9·8	6·8	10·1	10·3	10·5
Sikkim	**27·3**	**32·3**	**89·1**	**96·8**	**90·5**	**26·3**	**29·3**	**8·2**	**2·7**	**8·6**	**29·3**	**36·3**	**2·7**	**0·5**	**0·9**

DISTRIBUTION OF RURAL POPULATION

28. The following Statement II.11 is quoted for convenience from the title page of Union Table A.III published in the Tables Volume.

STATEMENT II.11

Percentage of population living in villages and towns of various population sizes with reference to the total population in each district, 1951

State and District	Less than 500	500 to 1,000	1,000 to 2,000	2,000 to 5,000	5,000 to 10,000	10,000 to 20,000	20,000 to 50,000	50,000 to 100,000	100,000 and above
West Bengal	**20·29**	**19·57**	**18·02**	**13·61**	**3·46**	**3·01**	**3·83**	**3·66**	**14·55**
Burdwan Division	*29·03*	*22·87*	*18·86*	*11·98*	*2·78*	*3·16*	*3·13*	*3·12*	*5·07*
Burdwan	16·74	23·82	23·76	15·73	4·56	5·86	2·61	6·92	..
Birbhum	34·41	29·95	17·53	9·58	2·88	5·65	..	..	..
Bankura	48·05	26·83	13·95	4·27	0·40	0·94	5·56	..	..
Midnapur	45·16	23·28	16·52	7·25	1·32	1·26	1·35	..	3·86
Hooghly	18·67	23·72	19·26	15·03	1·13	2·75	11·00	8·44	..
Howrah	2·99	11·96	21·61	21·70	6·90	4·01	..	3·92	26·91
Presidency Division	*13·21*	*16·90*	*17·34*	*14·93*	*4·00*	*2·89*	*4·41*	*4·09*	*22·23*
24-Parganas	9·88	18·90	21·61	15·83	5·02	3·27	6·03	8·66	10·80
Nadia	15·25	19·12	24·24	15·68	1·77	5·09	9·56	9·29	..
Murshidabad	14·00	19·65	22·47	28·29	7·11	5·24	..	3·24	..
Malda	23·95	22·56	22·98	23·36	2·78	1·10	3·27	..	..
West Dinajpur	57·29	25·25	8·69	2·95	1·16	4·60	..	..	..
Jalpaiguri	6·48	26·70	20·93	27·48	8·40	2·78	7·23	..	..
Darjeeling	19·37	14·72	18·66	12·26	9·07	6·38	19·54	..	..
Cooch Behar	23·52	27·70	24·57	15·82	3·44	4·95	..	..	..
Chandernagore	..	..	..	..	..	..	**100·00**	..	..
Sikkim	**6·52**	**12·77**	**29·90**	**33·45**	**9·73**	**7·68**	..	..	..

29. This statement compared with Statement II.2 shows how rapidly density has increased in the State.

30. Growth and Movement, Births and Deaths and Livelihood Pattern have been discussed in Chapter I and it is unnecessary to go over them again in this chapter. But the following statement, quoted from the title page of Union Table E in the Tables Volume, shows the percentages of the eight livelihood classes in the rural areas of West Bengal and Sikkim, taking the rural population of each district as 100.

STATEMENT II.12

Percentage of rural population in each district of West Bengal in the eight main livelihood classes, 1951

State and District	Livelihood class							
	I	II	III	IV	V	VI	VII	VIII
West Bengal	**42·42**	**15·74**	**15·99**	**0·56**	**10·99**	**4·40**	**0·97**	**8·93**
Burdwan	36·19	16·64	17·83	0·75	15·36	3·74	1·21	8·28
Birbhum	44·52	12·93	27·51	0·57	5·10	1·94	0·34	7·09
Bankura	55·04	10·64	20·35	0·47	6·91	2·16	0·33	4·10
Midnapur	54·83	17·52	14·27	0·58	4·10	2·39	0·64	5·67
Hooghly	40·58	15·49	17·29	0·80	7·89	6·34	1·55	10·06
Howrah	21·65	8·19	15·14	0·72	25·53	11·10	3·24	14·43
24-Parganas	39·26	14·40	19·98	0·56	9·27	6·02	1·13	9·38
Nadia	38·27	11·34	13·35	0·61	7·82	6·07	0·66	21·88
Murshidabad	44·49	11·40	17·85	0·45	9·11	5·19	0·64	10·87
Malda	43·67	17·06	12·80	0·22	9·24	3·92	0·41	12·68
West Dinajpur	50·48	27·84	10·86	0·43	2·28	2·13	0·26	5·72
Jalpaiguri	22·40	28·05	1·28	0·47	37·87	3·17	1·35	5·41
Darjeeling	26·29	11·35	2·25	0·10	47·75	2·41	1·60	8·25
Cooch Behar	54·22	27·69	7·48	0 41	3·28	2·39	0·28	4·25
Sikkim	**85·44**	**7·71**	**0·15**	**0·04**	**0·61**	**0·91**	**1·87**	**3·77**

SECTION 3

CONCLUDING REMARKS

31. It has been argued in the Concluding Remarks in Chapter I that the rural population in West Bengal is heading towards a serious crisis in production and livelihood. A very high density, an increasing proportion of sharecroppers, a swelling population of agricultural serfs who live below the subsistence level, a soil of decreasing fertility have all resulted in intensifying the dichotomy that exists between rural and urban economies in India today. The Permanent Settlement hangs like a millstone round the neck of this population, while the private ambitions of sharecroppers and agricultural labourers to possess a piece of land to call their own remain unfulfilled. Agriculture has become a losing battle, a habit or 'a way of life' devoid of hope and improvement. While employment is no less important than production, the latter obviously must engage public attention as the field of attack, and insofar as this is so, rural agricultural employment must engage public attention also. There is so little means of capital formation in a rural economy other than through agriculture that the latter must be made the target of reforms so that production can increase, yielding a surplus, and consequently capital. All this is intimately bound up with land reform and the question of redistribution of land, because a stage has been reached when according to the Land Revenue Commission of Bengal (1940), palliatives,—a little improved seed or a little irrigation, a little extra manure or a little improvement in marketing facilities—will not improve the situation or maintain the improvement for any length of time. As it is there is a basic malaise in the World's agriculture today, an inability to catch up with prewar standards of production and distribution. The whole of Asia and the Far East, with the exception of China and Japan, seems to be agriculturally 'down in the dumps'. It is no more a question of a bowl of rice being sufficient unto the day. It is now a question of a bowl of rice filling the belly, and a little more besides to produce the money which will form capital for other enterprise. This neither the present pace of land reform nor the present state of agronomy and land management seems qualified to bring about. But on a determined reform of both really depend the health, wealth and happiness of the rural population of the east,—not primarily in birth control, nor in disease and periodic decimation, nor in a lop-sided sex-ratio, but in a new balance between agriculture and industry. West Bengal presents today what India as a whole is headed for tomorrow. The very high density of the former, the pressure on its soil, the development of industry in limited zones, and the presence of a large immigrant and Displaced population throw the highlight on problems common to this hemisphere. The writing is on the wall. A description of the true plight of the rural population, which boils down to a description of the present state of agriculture, will form the subject matter of Chapter IV in which the state of rural and small scale industries as well as of agriculture will be analysed. Suffice here to state the problem, and to point out that the rural population of West Bengal can neither hark back to the past nor cheerfully face the future.

CHAPTER III

URBAN POPULATION

SECTION 1

PRELIMINARY REMARKS

THE STATISTICS principally discussed in this chapter are those mentioned in the opening paragraph of Chapter I. In addition, Subsidiary Tables printed in Part IC of this Report show:

- III.1 Distribution of Population between Towns.
- III.2 Variation and Density of Urban Population.
- III.3 Mean Decennial Growth Rates during three decades of Urban Population.
- III.4 Towns Classified by Population.
- III.5 Cities—Chief Figures.
- III.6 Number per 1,000 of the General Population and of each livelihood class who live in towns.
- III.7 Livelihood Pattern of Urban Population.

A discussion has been made in the section on density in Chapter I distinguishing the various types of cities and towns and the functions they discharge in the economy of the State. The title pages of Union Tables A.I, A.II, A.III, A.IV and E in Part II of this Report containing discussion of cities and towns and on certain characteristics of the urban population may be found useful in this connexion. Statement I.39 in Chapter I shows the percentage variation of urban population district by district between 1901 and 1951. The comments thereunder will show the pace at which cities and towns have grown over the last half-century and the causes underlying the different rates of growth. The following Statement III.1 is a more detailed analysis than is available in Subsidiary Table III.1 of cities and towns with populations over 20,000.

STATEMENT III.1

Distribution of population between towns with populations over 20,000 in 1951

State and District	Average population per town	Number in towns per 1,000 of general population in district	Number per 1,000 of urban population in towns with a population of				
			100,000 and over	80,000 to 100,000	60,000 to 80,000	40,000 to 60,000	20,000 to 40,000
1	2	3	4	5	6	7	8
West Bengal	**53,976**	**248**	**586**	..	**94**	**98**	**101**
Burdwan Division	*32,151*	*145*	*350*	..	*180*	*94*	*157*
Burdwan	23,139	148	..	..	468	..	177
Birbhum	13,799	65	..	..	..	..	..
Bankura	18,924	72	..	..	..	522	253
Midnapur	22,989	75	512	..	..	180	..
Hooghly	31,357	222	..	..	215	165	496
Howrah	130,580	324	830	..	121	..	..
Presidency Division	*71,025*	*332*	*670*	..	*63*	*99*	*82*
24-Parganas	41,393	206	365	..	210	149	130
Calcutta	2,548,677	1,000	1,000	..	..	..	..
Nadia	29,729	182	..	..	..	715	135
Murshidabad	22,488	79	..	..	..	412	..
Malda	17,580	38	..	..	..	..	872
West Dinajpur	13,980	58	..	..	..	..	..
Jalpaiguri	33,072	72	..	..	..	624	376
Darjeeling	23,620	212	..	..	..	..	690
Cooch Behar	8,363	75	..	..	..	..	662
Chandernagore	**49,909**	**1,000**	..	..	..	1,000	..
Sikkim	**2,744**	**20**	..	..	..	..	..

2. This statement takes the scales off the eyes of a reader who might carry an impression from the urban percentage of West Bengal as a whole that this State was the most urbanised of all states in India. It is only Howrah of all districts that has an urban percentage as high as 32·4 : itself, however, a paltry ratio when one comes to think of it. Only three districts, Hooghly, 24-Parganas and Darjeeling, have urban percentages varying between 21 and 30. Of these Hooghly and Darjeeling are as low as 22·2 and 21·2 while 24-Parganas is 29·6. Only two districts, Nadia and Burdwan, have urban populations over 10 per cent. of their general populations Nadia having 18·2 and Burdwan, in spite of its old and new industrial town, only 14·8 per cent. All other districts—Birbhum, Bankura, Midnapur, Murshidabad, Malda, West Dinajpur, Jalpaiguri and Cooch Behar—have urban populations which are much below 10 per cent. of their general population. Malda has less than 5 per cent., while West Dinajpur and Birbhum have 5·8 and 6·5 respectively. Bankura, Midnapur, Murshidabad, Jalpaiguri and Cooch Behar have urban populations which vary between 7 and 8 per cent. of their general population.

3. This is a shock to anyone who would fondly imagine that West Bengal had decided to tread the path of trade, industry and commerce, leaving agriculture in the shade. Briefly it boils down to what has already been said before, that if the industrial cities and towns of Burdwan, Hooghly, Howrah and 24-Parganas, and the city of Calcutta were taken away, West Bengal would be very much reduced to the status of a state like Orissa, with this difference that Orissa has a thin density compared to West Bengal and more agricultural land and actual area than the latter. This is what makes West Bengal's economy so vulnerable to the least disturbance either in the field of agriculture or in the field of urban livelihoods, and accentuates the dichotomy of urban and rural life. The points of contact are few and far between, especially on account of large immigrant populations in the larger cities and towns. The large cities and towns assume the character of sponges and parasites which, by their production, cater more to an international market than to West Bengal, while for food, housing, municipal amenities, and other kinds of sustenance they suck the life of rural West Bengal. It is startling that 58·7 per cent. of the urban population of the State live within an area of roughly 83 square miles in the cities of Bhatpara and Khargpur and in the five cities of Calcutta, Howrah, Tollyganj, Garden Reach and South Suburbs (which are all clustered round Calcutta and within a radius of six miles from Fort William). Reckoned another way the cities of Howrah, Calcutta, Tollyganj, Garden Reach and South Suburbs, and the adjoining towns of Bally, Dum Dum, South Dum Dum, North Dum Dum, and Baranagar, or what may be called the well knit Calcutta Area, contain 3,573,152 persons in 85·2 square miles or 58·1 per cent. of the State's total urban population of 6,153,263. Greater Calcutta or Calcutta Industrial Area includes Calcutta, Howrah, Bally, Budge Budge, South Suburbs, Garden Reach, Tollyganj and Batanagar, 15 municipal towns, one cantonment, and one non-municipal town of Barrackpur subdivision and 10 municipal towns of Hooghly district along the river Hooghly. The total population of this tract of land is 4,578,071 in an area of 160 square miles and the density works out at 28,613 persons per square mile. The ratio of males to total population in this area is 62·41, and the number of females to every 1,000 males as low as 602. The population of the cities and towns in the Calcutta Industrial Area is given below:

POPULATION OF CALCUTTA INDUSTRIAL AREA

STATEMENT III.2

Population in cities and towns in the Calcutta industrial area, 1951

(The Displaced population is included in total population)

Cities and towns	Area in square miles	Total Population	Displaced Population
1 Calcutta	32·32	2,548,677	433,228
2 Howrah	9·96	433,630	36,832
3 Tollyganj	6·6	149,317	64,176
4 Bhatpara	5·5	134,916	13,711
5 Garden Reach	3·42	109,160	2,994
6 South Suburbs	12·25	104,055	20,096
7 Baranagar	3·7	77,126	19,835
8 Kamarhati	4·04	77,251	10,216
9 Serampur	1·3	74,324	7,676
10 Titagarh	1·25	71,622	2,764
11 South Dum Dum	5·08	61,391	28,940
12 Bally	3·06	63,138	7,955
13 Kanchrapara	3·5	56,668	20,526
14 Hooghly-Chinsurah	6·0	56,805	6,811
15 Naihati	1·68	55,313	9,423
16 Panihati	7·5	49,514	15,983
17 Champdani	2·5	31,543	462
18 Barrackpur	4·5	42,639	12,617
19 Halisahar	5·5	34,666	4,875
20 North Barrackpur	3·25	32,173	7,674
21 Bhadreswar	2·5	36,292	1,331
22 Budge-Budge	3·0	32,196	783
23 Baidyabati	3·5	24,883	1,864
24 Bansberia	3·5	30,622	3,402
25 Rishra	2·4	27,465	662
26 Garulia	1·5	28,304	1,772
27 Konnagar	2·1	20,233	2,473
28 Khardah	4·5	18,524	4,826
29 Uttarpara	0·8	17,126	2,513
30 Barrackpur Cantonment	1·43	16,189	4,892
31 Kotrung	2·0	14,177	1,995
32 Dum Dum	0·9	14,002	4,459
33 North Dum Dum	7·0	12,156	5,649
34 Batanagar	0·47	6,874	1,026
35 Ichhapur Defence Estate	0·89	14,600	4,858
	160·30	4,578,071	778,299
CHANDERNAGORE	**3·73**	**49,909**	**5,170**

4. If the urban population of the Calcutta Industrial Area and the Asansol mining and industrial area (a total of 4,780,625 persons in 181·1 square miles) were excluded from the total urban area and total urban population of West Bengal they would leave a residue of only 270·3 square miles of urban area with a population of only 1,372,638 persons or a density of 5,078 persons per

square mile. All this shows how uneven is the distribution of urban population in West Bengal and how wrong it would be to imagine from the overall figure a high urban ratio uniformly for all districts in the State.

5. There were 85 towns in West Bengal in 1921, 90 in 1931, 99 in 1941. In 1951 there are 114. In 1921 the urban population was only 15 per cent. of the total population in West Bengal. In 1931 it was 16 per cent. In 1951 it is 24·8 or 25 per cent. That is to say, for every three villagers, one is a town dweller. The total urban population of West Bengal is 6·15 millions which is 2 1/5 times more than the urban population of 1931. This explains the congestion noticed in all towns of West Bengal and the difficulty of securing accommodation in even small towns, because building has not kept pace with the growth of population. There are 50 towns in the Burdwan Division and 64 towns in the Presidency Division. In 24-Parganas alone, there are 33 towns of which 4 are now cities. In 1931 West Bengal had 2 cities, Calcutta and Howrah; in 1941, with Bhatpara added, 3. Today there are 7 cities in West Bengal each with a population of over 100,000.

6. Cities and towns can be classified according to their predominating characteristics into A—Residential towns of which some 40 in number are administrative headquarters and 27 are ordinary residential towns; B—Industrial towns, 33 in number, each containing several industries of which the more notable may be marked against each name; C—Mining towns, 3 in number, in the Asansol subdivision; and D—Railway towns, 5 in number. Besides, there are E—4 rice mill towns which may be alternatively classified among ordinary residential towns, and F—2 trading and shipping towns which also can be classified among ordinary residential towns. The following is a statement of the six categories of towns in West Bengal, Chandernagore and Sikkim.

STATEMENT III.3

List of towns under six classifications with number of females per 1,000 males in each of them, West Bengal, 1951

(Figures within bracket denote females per 1,000 males)

A—RESIDENTIAL TOWNS

Administrative Headquarters

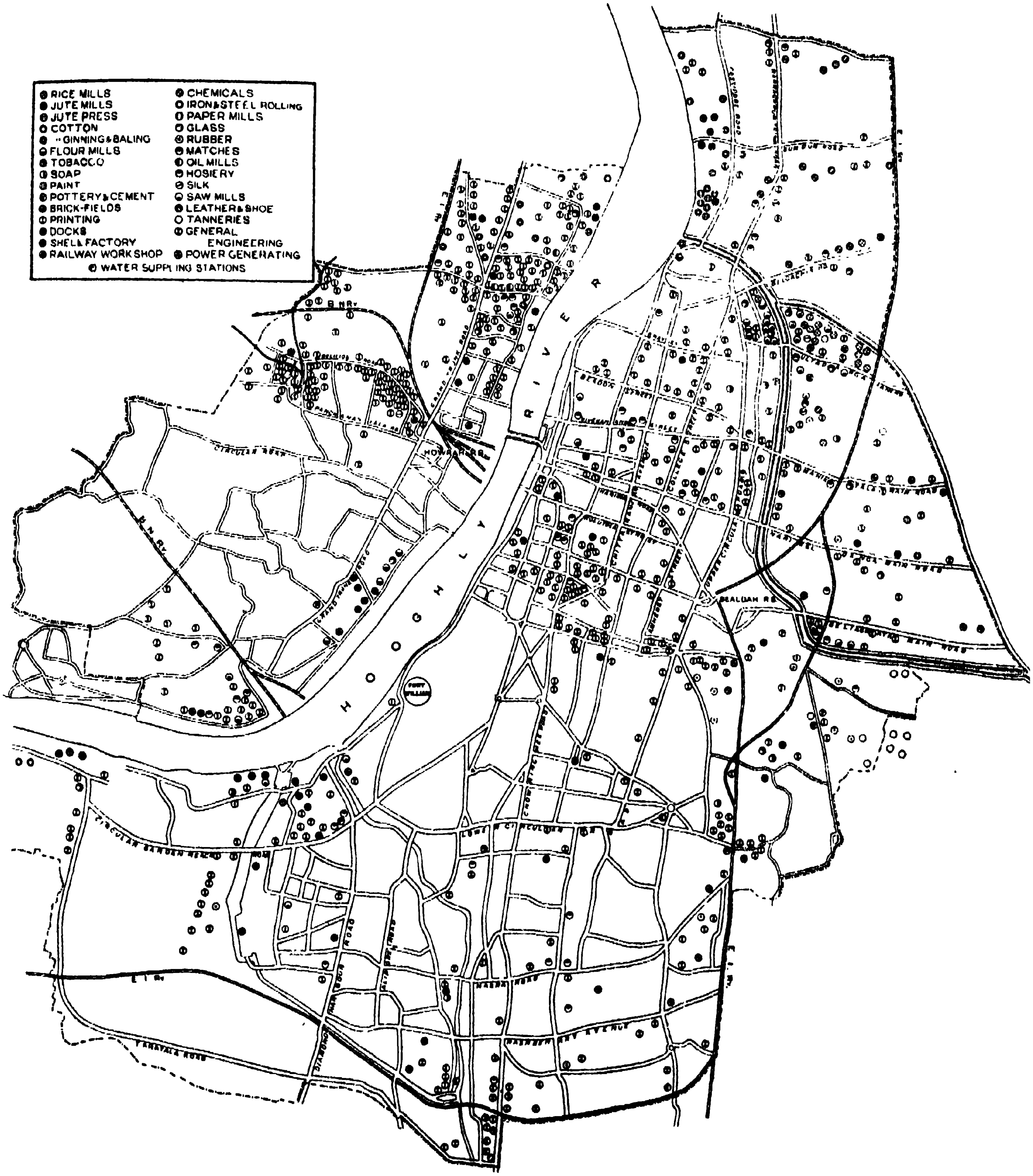
(Names in capitals are district headquarters)

1 BURDWAN (oil and rice mills) (749)
2 Kalna (870)
3 Katwa (oil and rice mills) (897)
4 SURI (rice mills) (830)
5 Rampurhat (829)
6 BANKURA (oil and rice mills) (878)
7 Vishnupur (rice mills) (1,049)
8 MIDNAPUR (810)
9 Contai (871)
10 Tamluk (897)
11 Ghatal (887)
12 Jhargram (saw mills) (809)
13 HOOGHLY-CHINSURAH (Rubber) (851)
14 Arambag (867)
15 Uluberia (917)
16 Basirhat (868)
17 Barasat (864)
18 Bangaon (925)
19 Barrackpur Cantonment (642)
20 Diamond Harbour (807)
21 KRISHNAGAR (884)
22 Ranaghat (842)
23 BERHAMPUR (oil and rice mills) (869)
24 Murshidabad (970)
25 Jangipur (1,015)
26 Kandi (924)
27 ENGLISHBAZAR (rice mills) (876)
28 BALURGHAT (809)
29 Raiganj (rice mills) (765)
30 JALPAIGURI (681)
31 Alipur Duar (saw mills) (678)
32 DARJEELING (825)
33 Kurseong (835)
34 Kalimpong (811)
35 COOCH BEHAR (plywood mills) (719)
36 Tufanganj (775)
37 Dinhata (648)
38 Mathabhanga (682)
39 Mekliganj (708)
40 Haldibari (786)
41 GANGTOK (686)
42 CHANDERNAGORE (769)

Others

1 Dainhat (rice mills) (896)
2 Bolpur (rice and oil mills) (849)
3 Khatra, (brass and bell metal) (927)
4 Sonamukhi (rice mills) (1,056)
5 Patrasair (940)
6 Garhbeta (787)
7 Kharar (958)
8 Ramjibanpur (975)

Industrial
CALCUTTA & HOWRAH



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STATEMENT III.3—contd.

9 Chandrakona (958)
10 Khirpai (926)
11 Baidyabati (trading town) (741)
12 Rajpur (907)
13 Baruipur (892)
14 Jaynagar-Majilpur (922)
15 Baduria (855)
16 Taki (915)
17 Gobardanga (878)
18 South Dum Dum (Miscellaneous mills) (702)
19 Dum Dum (ordnance) (552)
20 North Dum Dum (Miscellaneous mills) (798)
21 Nabadwip (975)
22 Birnagar (935)
23 Chakdah (932)
24 Kanchrapara D. A. R. Colony (909)
25 Santipur (979)
26 Jiaganj-Azimganj (jute) (957)
27 Old Malda (rice and jute) (713)

B—INDUSTRIAL TOWNS

1 Chittaranjan (Locomotive industry) (426)
2 Kulti (Iron and steel, refractories, coal) (687)
3 Burnpur (Iron and steel, coal, refractories (536)
4 Raniganj (Coal, paper, electricity) (886)
5 Bansberia (Jute spinning, etc.) (613)
6 Serampur (Jute spinning, etc., chemical industries, cotton textiles, belting, etc., Admn. Hqrs.) (640)
7 Rishra (Jute spinning, etc., chemical industries, cotton textiles, etc.) (561)
8 Uttarpara (automobile industry) (894)
9 Konnagar (Chemical industry, distillery) (612)
10 Kotrung (Tiles, bricks) (681)
11 Champdani (Jute spinning, etc.) (702)
12 Bhadreswar (Jute spinning, etc.) (521)
13 Howrah (Jute spinning, etc., docks, rope works, chemical industries, foundries, railways, Admn. Hqrs.) (CITY) (616)
14 Bally (Iron and steel, railways) (533)
15 Bauria (Jute spinning, etc.) (579)
16 Budge-Budge (Fuel oil installations, jute spinning, miscellaneous) (580)
17 Garden Reach (Ship-building, railways, electricity) (CITY) (648)
18 Tollyganj (Miscellaneous industries) (CITY) (780)
19 South Suburbs (Miscellaneous industries, Mint, etc.) (CITY) (792)
20 Batanagar (Footwear industry) (567)
21 Titagarh (Jute spinning, etc., paper, etc.) (533)
22 Bhatpara (Jute spinning, etc.) (CITY) (533)
23 Naihati (Jute spinning, etc.) (653)

STATEMENT III.3—concld.

24 Halisahar (Jute spinning, etc.) (456)
25 Panihati (Jute spinning, etc., chemical industries, etc.) (602)
26 Khardah (Jute spinning, etc., chemical industries, etc.) (735)
27 Ichhapur Defence Estate (Ordnance) (578)
28 Barrackpur (Jute spinning, etc.) (630)
29 Garulia (Jute spinning, etc.) (514)
30 North Barrackpur (Jute spinning, etc.) (735)
31 Baranagar (Jute spinning, etc.) (717)
32 Kamarhati (Jute spinning, etc.) (649)
33 Calcutta (Port, other industries) (CITY) (570)

C—MINING TOWNS

1 Barakar (coal, electricity) (726)
2 Disergarh (coal, electricity) (840)
3 Neamatpur (coal) (765)

D—RAILWAY TOWNS

1 Asansol (Administration Headquarters) (937)
2 Ondal (coal) (759)
3 Khargpur (CITY) (909)
4 Kanchrapara (jute spinning) (757)
5 Siliguri (saw mills, etc., Admn. Hqrs.) (554)

E—RICE MILL TOWNS

1 Memari (699)
2 Sainthia (817)
3 Dubrajpur (stone quarrying) (944)
4 Hili (706)

F—TRADING AND SHIPPING TOWNS

1 Canning (688)
2 Dhulian (941)

7. Alternatively as in Union Table A.IV cities and towns can be classified into six classes according to their population. The following Statement III.4 classifies the cities and towns of West Bengal, Chandernagore and Sikkim according to their population.

STATEMENT III.4

Classification of cities and towns according to their population in 1951

CLASS I—(Cities)

(Population of 100,000 and over)

1	Calcutta	2,548,677
2	Howrah	433,630
3	Tollyganj	149,317
4	Bhatpara	134,916
5	Khargpur Town	129,636
6	Garden Reach	109,160
7	South Suburbs	104,055

STATEMENT III.4—contd.

Total—Class I

West Bengal	3,609,891
West Bengal, Candernagore and Sikkim .	3,609,891

CLASS II

(50,000 to 100,000)

8	Kamarhati . .	77,251
9	Baranagar . .	77,126
10	Asansol . .	76,277
11	Burdwan . .	75,376
12	Serampur . .	74,324
13	Titagarh . .	71,622
14	Bally . . .	63,138
15	South Dum Dum .	61,391
16	Hooghly-Chinsurah	56,805
17	Kanchrapara .	56,668
18	Nabadwip . .	56,298
19	Berhampur . .	55,613
20	Naihati . .	55,313
21	Krishnagar . .	50,042

Total—Class II

West Bengal	907,244
West Bengal, Chandernagore and Sikkim	907,244

CLASS III

(20,000 to 50,000)

22	Chandernagore	49,909
23	Panihati	49,514
24	Bankura	49,369
25	Midnapur	45,476
26	Barrackpur	42,639
27	Santipur	42,413
28	Jalpaiguri	41,259
29	Bhadreswar	36,292
30	Basirhat	34,823
31	Halisahar	34,666
32	Darjeeling	33,605
33	Cooch Behar	33,242
34	Siliguri	32,480
35	Budge-Budge . . .	32,196
36	North Barrackpur . .	32,173
37	Champdani	31,543
38	Kulti	31,363
39	Englishbazar . . .	30,663
40	Bansberia	30,622
41	Garulia	28,304
42	Ranaghat	28,064
43	Rishra	27,465
44	Raniganj	25,939
45	Alipur Duar	24,886
46	Baidyabati	24,883
47	Vishnupur	23,981
48	Bangaon	23,364
49	Konnagar	20,233

Total—Class III

West Bengal	891,457
West Bengal, Chandernagore and Sikkim	941,366

STATEMENT III.4—contd.

CLASS IV

(10,000 to 20,000)

50	Jiaganj-Azimganj . .	19,148
51	Khardah	18,524
52	Burnpur	18,487
53	Jangipur	18,255
54	Suri	18,135
55	Balurghat	18,121
56	Kalna	17,324
57	Uttarpara	17,126
58	Kalimpong	16,677
59	Baduria	16,385
60	Rajpur	16,310
61	Barrackpur Cantonment .	16,189
62	Chittaranjan	16,162
63	Ghatal	16,125
64	Barasat	16,027
65	Dhulian	15,935
66	Katwa	15,533
67	Raiganj	15,473
68	Chakdah	15,372
69	Kandi	15,220
70	Rampurhat	15,144
71	Bolpur	14,802
72	Ichhapur Defence Estate .	14,600
73	Kotrung	14,177
74	Dum Dum	14,002
75	Tamluk	13,599
76	Jaynagar-Majilpur . .	13,355
77	Taki	13,138
78	Bauria	12,977
79	Contai	12,738
80	Uluberia	12,575
81	Sonamukhi	12,352
82	Dubrajpur	12,205
83	North Dum Dum . . .	12,156
84	Kanchrapara Development Area Rural Colony . .	12,019
85	Neamatpur	11,756
86	Kurseong	11,719
87	Arambag	11,460
88	Murshidabad . . .	10,756
89	Barakar	10,440

Total—Class IV

West Bengal	592,498
West Bengal, Chandernagore and Sikkim	592,498

CLASS V

(5,000 to 10,000)

90	Diamond Harbour . .	9,818
91	Baruipur	9,238
92	Sainthia	8,707
93	Hili	8,346
94	Dainhat	8,149
95	Jhargram	7,975
96	Disergarh	7,842
97	Canning	7,836

STATEMENT III.4—contd.

CLASS V
(5,000 to 10,000)

98 Ramjibanpur	7,539
99 Batanagar	6,874
100 Gobardanga	6,519
101 Dinhata	5,848
102 Chandrakona	5,717
103 Kharar	5,023
104 Memari	5,005

TOTAL—CLASS V

West Bengal	110,436
West Bengal, Chandernagore and Sikkm	110,436

CLASS VI
(Under 5,000)

105 Garhbeta	4,806
106 Patrasair	4,789
107 Old Malda	4,498
108 Ondal	4,288
109 Mathabhanga	4,256
110 Khirpai	4,246
111 Khatra	4,127
112 Birnagar	3,893
113 Haldibari	3,162

STATEMENT III.4—concld.

114 Gangtok	2744
115 Tufanganj	2,316
116 Mekliganj	1,356

TOTAL—CLASS VI

West Bengal	41,737
West Bengal, Chandernagore and Sikkim	44,481

8. The following Statement III.5 shows the different rates of increase of population in I. Residential towns (including administration headquarters, ordinary residential towns, rice mill towns and trading and shipping towns), II. Industrial towns, and III. Mining towns and IV. Railway towns. It will be seen that increase in population has been quite unsatisfactory in the first class of towns but more satisfactory in the industrial, mining and railway towns.

STATEMENT III.5

Progress of population in cities and towns, classified according to character, in West Bengal, Chandernagore and Sikkim, 1872-1951

(Percentage decennial variation is shown under absolute figures. + indicates increase, — indicates decrease)

Class of towns	1951	1941	1931	1921	1911	1901	1891	1881	1872
I Residential towns (includes Administration Headquarters, ordinary residential towns, rice mill towns and trading and shipping towns)	1,435,624 +43·1	1,003,348 +41·0	711,375 +10·0	640,619 +2·0	634,088 +3·6	612,186 +4·7	584,498 +4·4	559,599 — 0·5	562,536 ..
II Industrial towns . .	4,440,905 +27·7	3,478,513 +71·3	2,030,853 +14·4	1,774,753 +8·0	1,643,956 +16·3	1,413,119 +23·1	1,147,568 +18·4	968,987 — 0·8	976,981 ..
III Mining towns . .	30,038 +207·4	9,771 ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
IV Railway towns . .	299,349 +59·8	187,340 +64·9	113,602 +82·9	62,111 +51·9	40,876 +174·2	14,906 ..	.. ..	.. ..	.. ..

9. This at once shows the enormous difference in the growth and progress of residential towns in the State and in those of industrial and railway towns. Further examination of the career of residential towns since 1872 will reveal (a) that not a small number among them are less populated today than in 1872, and (b) another group stagnated or steadily decayed until 1921 or 1931. It is significant that with the exception of Raniganj, Bansberia and Kotrung no industrial, rice mill, trading and shipping or railway town belongs to any of these declining categories.

10. The following Statement III.6(a) shows those residential towns which are less populated today than in 1872:—

DECADENT TOWNS

STATEMENT III.6(a)

Progress of residential towns which are less populous in 1951 than in 1872

Name of Town	Population in 1951	1941	1931	1921	1911	1901	1891	1881	1872
BURDWAN DISTRICT									
1 Kalna . . .	17,324	12,563	9,567	8,424	8,608	8,121	9,680	10,463	27,336
BANKURA DISTRICT									
2 Sonamukhi . .	12,352	14,667	10,989	10,644	13,275	13,448	13,462	5,590	12,565
3 Patrasair . . .	4,789	5,781	4,854	5,485	..	..	..	..	..
MIDNAPUR DISTRICT									
4 Kharar . . .	5,023	5,570	5,736	6,580	8,889	9,508	10,083	..	..
5 Ramjibanpur . .	7,539	6,036	6,280	6,700	8,481	10,264	9,977	10,909	11,166
6 Chandrakona . .	5,717	6,411	6,016	6,470	8,121	9,309	11,309	12,257	21,311
7 Khirpai . . .	4,246	3,623	3,693	3,756	4,605	5,045	5,708	6,295	8,046
HOOGHLY DISTRICT									
8 Arambag	11,460	8,992	7,461	7,857	8,048	8,281	8,326	10,507	13,409
24-PARGANAS DISTRICT									
9 Gobardanga . . .	6,519	5,544	4,525	5,112	5,070	5,865	6,704	6,154	6,952
NADIA DISTRICT									
10 Birnagar	3,893	1,813	2,341	2,305	2,654	3,124	3,421	4,321	
MURSHIDABAD DISTRICT									
11 Murshidabad . . .	10,756	11,498	9,483	10,669	12,669	15,168	18,899	20,841	24,534
12 Jiaganj-Asimganj . .	19,148	15,223	10,998	11,281	12,327	13,385	16,677	18,390	21,648
MALDA DISTRICT									
13 Old Malda . . .	4,498	3,845	2,779	3,145	3,750	3,743	4,178	4,694	5,262

11. Statement III.6(b) shows those towns which up to 1921 or 1931 or even 1941 either stagnated or decayed in population but improved later.

STATEMENT III.6(b)

Residential towns which declined in population until recently 1872-1951

	1951	1941	1931	1921	1911	1901	1891	1881	1872
BURDWAN DISTRICT									
1 Katwa	15,533	11,283	7,772	6,823	6,904	7,220	6,699	6,820	7,903
2 Dainhat	8,149	5,086	4,845	4,843	5,842	5,618	5,144	5,789	7,562
BIRBHUM DISTRICT									
3 Suri	18,135	15,863	10,908	8,915	9,131	8,692	7,481	7,848	9,001
MIDNAPUR DISTRICT									
4 Ghatal	16,125	17,226	12,400	10,770	12,064	14,525	13,942	12,638	15,402
HOOGHLY DISTRICT									
5 Hooghly-Chinsurah . .	56,805	40,081	32,634	29,938	28,916	29,383	33,060	31,177	34,761
24-PARGANAS DISTRICT									
6 Barasat	16,027	11,230	8,672	8,211	8,790	8,634	9,754	10,533	11,822
NADIA DISTRICT									
7 Krishnagar . . .	50,042	32,016	24,284	22,309	23,475	24,547	25,500	27,477	26,750
8 Ranaghat	28,064	16,488	11,395	9,652	9,850	8,744	8,506	8,683	8,871
9 Chakdah	15,372	5,494	3,986	5,216	4,931	5,482	8,618	8,989	8,218
10 Santipur	42,413	29,892	24,992	24,702	26,703	26,898	30,437	29,687	28,635
MURSHIDABAD DISTRICT									
11 Berhampur . . .	55,613	41,558	27,403	26,070	26,143	24,397	23,515	23,605	27,110
12 Jangipur	18,255	16,903	12,796	10,739	11,408	10,921	9,794	10,187	11,861

12. As observed before only three industrial towns suffered from fluctuations in population between 1872 and 1951. Statement III.6(c) shows the progress of these towns over the 80-year period.

STATEMENT III.6(c)

Three industrial towns whose population fluctuated between 1872 and 1951

	1951	1941	1931	1921	1911	1901	1891	1881	1872
BURDWAN DISTRICT									
1 Raniganj	25,939	22,839	16,373	14,536	15,407	15,841	13,772	10,702	10,578
HOOGHLY DISTRICT									
2 Bansberia	30,622	23,716	14,221	6,882	6,108	6,473	6,783	7,031	7,861
3 Ketrung	14,177	9,401	7,160	6,846	6,574	5,944	5,164	5,747	6,811

13. All other industrial towns have maintained steady progress and increase throughout the 80-year period. Only Bhatpara, Naihati, Halisahar, Barrackpur and Calcutta suffered decreases in 1872-81 no doubt through the effects of the Burdwan Fever.

14. In trying to trace the reasons for the decay of some of the 25 towns mentioned in Statements III.6(a) and (b) W. H. Thompson in 1921 put them down to one single cause: " the unpopularity of town life among the people of Bengal " (page 113 of Census Report of Bengal, 1921). Thompson is the only Superintendent of Census Operations who has so far examined the census record primarily from the point of view of population and sustenance, and brought to bear on this examination his intimate knowledge of the province as an administrator and settlement officer. It is, therefore, important to listen to his arguments with respect before begging to differ, if one must. He writes:

> To many the decrease in the proportion of females in the average country town at more than double the rate of decrease in the province as a whole and two and a half times the rate in rural areas may come as a surprise. Some would have expected signs to show that the advantages of municipal conservancy, a good water supply, and the other amenities which town life affords were beginning to be appreciated and to attract families to the town. The reverse seems to be the case. The number of men who are able to find employment in towns whether professionally in the law, in medicine, and in the lower grades of administrative service, or as shopkeepers and servants, has increased. The male population of the average country town has increased, but an increasing proportion leaves its womenfolk behind in the country and the total population is almost stationary. Town life is not the normal life of any section of the Bengalis. They dislike it and do not seem to get over their dislike. The pleader, the clerk, the school master and the shopkeeper, whose work is in the town, each has a house of his own or belonging to his family somewhere in the country. There his family can live far more cheaply than in the town and the practice of keeping up two establishments seems to be on the increase. Partly this is due to the difficulty of obtaining accommodation in towns especially by Muhammadans for the landlords are commonly Hindus who object to a Muhammadan tenant, but mainly it is to be put down to the *purdah* system. A small section of the upper classes is beginning to relax its rigour, but there is no sign of such relaxation among the middle classes, and the lower classes in imitation of the habits of their superiors are enforcing it among themselves more rigorously than formerly. The decade from 1911 to 1921 is the first in which the population of the average town has increased faster than the population of Bengal as a whole. The increasing disparity between the sexes however proves that this is no indication that town life is beoming more popular. A filtered water supply has been installed in 15 towns in Bengal in the decade and there are good grounds for believing that the general health of towns compared with the country has improved, although the vital statistics of municipal areas are so unreliable as to be useless as evidence on the point.
>
> If further evidence is required of the unpopularity of town life among the people of Bengal it is to be found in the decadence of almost every town which is not an industrial centre, and has not been made a centre of administration. Almost every such town in the province has lost population at almost every successive census. The following are examples (Murshidabad, Khirpai, Azimganj, ,Chandrakona, Birnagar, Old Malda, Ramjibanpur, Chakda, Kharar, Bansbaria, Sonamukhi and Santipur belonging to present West Bengal are mentioned—A. M.)
>
> Towns of this class are also remarkable for their high proportion of women. There are only nine towns in Bengal with more females than males (of these Santipur, Jangipur, Sonamukhi, Dhulian, Taki, Dainhat, Khirpai belong to present West Bengal.—A. M.). Only one of them, Jangipur, is a subdivisional headquarters, and none are the headquarters of districts. As might be expected in the

old towns, which are inclined to decadence, there are few immigrants, the more promising of the youth of the old families seek employment elsewhere, and the proportion of females among those who are left is as high or higher than in rural areas.

15. It is unfortunate that at the moment when Thompson was putting his finger on the right spot he should have turned away, and missed the real reasons. There are three sentences in the above quotation which give us the clue: (a) when he says that a professional man's family can live far more cheaply (in the village) than in the town and the practice of keeping up two establishments seems to be on the increase; (b) that every town which is not an industrial or administrative centre has decayed; and (c) that in those towns where females outnumber males the more promising youth of the old families seek employment elsewhere.

16. The reason for the decay of those towns which are now called residential and which Thompson called 'country towns' lies not in an intensification of the purdah system, nor in a growing "unpopularity of town life among the people of Bengal" but in (i) the rapid decay of those towns as centres of trade, manufacture and industry; (ii) the shift of these activities elsewhere to new centres; and (iii) to a thoroughly new system of production,—strange to the genius of production and manufacture in this subcontinent. In this new system of production the family is no longer counted as a unit. In the old pattern of production practised in the old towns the housewife, the grownup sons, and the younger children all helped the head of the family in different ways in producing his ware and bye-products. But in the new industrial towns with the new pattern of production the individual was all that counted, the factory 'hand'—no matter to whom it belonged. In this new system of production the family was a nuisance, not helping at all in increasing production but creating on the other hand so many problems of housing, sanitation water supply, and subsistence wages. The family being a hindrance and good only for increasing the cost of production was not wanted. What was wanted was the able 'hand' without the encumbrance of a family. It was only in the later stages when the new system of production took root and stabilised that the advantage of settling the worker's family as well on the site of industry was realised. It was now a question of keeping the 'hand' happy and comfortable in home life, of giving him a stake in his job and preventing him from going on "irresponsible" strikes provoked by "self-seeking leaders". By this time, however, enough profits had been made to permit of expenditure by way of labour housing and amenities of the meanest form, and the international labouring class organisation had grown strong enough to force the hands of employers. The new industrial pattern also had acquired stakes in their own continuance to sanction this expenditure.

17. The decrease in the proportion of females in the average country town which Thompson mentions as evidence of the unpopularity of towns was therefore due to a rapid disintegration of the old pattern of manufacture, industry and trade in those towns which had so long maintained a balance of population between the town and the village, and had many more points of true contact between the country's rural and urban economies before the middle of the nineteenth century than afterwards. It seems that rural-urban economy was far more organic and interdependent in the old system of production than in the new. In the old system there was more of organised life in production, which soon came to be replaced by organised labour in the new pattern. It is unnecessary to enlarge upon this commonplace but one may lend point to it by explaining concretely.

18. In James Rennell's Atlas of the East India Company's domain precisely those towns which are mentioned in

the Statement III.6 are marked as flourishing centres of trade, commerce and industry. Up to the middle of the nineteenth century most of them continued to flourish but already the Court of Directors of the East India Company having forbidden the export of an increasing list of commodities out of Bengal ports to England and elsewhere, and having driven other nations and countries out of the field of Bengal's trade and commerce by their sovereign rights and supremacy on the high seas, indigenous manufactures, for which Bengal had so long enjoyed a far famed reputation, suddenly slumped and then rapidly disintegrated. The sudden impoverishment and dissolution of livelihood naturally led to demoralisation and loss of vitality, and it was no coincidence that the Burdwan Fever was enabled to strike with all its might specially those towns which had formerly flourished. The fever literally hit these towns below the belt. The high female ratio in these towns as late as 1872 suggests that migration into them from villages must have been more complete in years past, that those who had come away from villages to settle in the towns had left behind little to make them look back over their shoulders. They had no regrets. But events in the middle of the century sowed doubts and soon compelled an increasing number of townsmen to put one foot in the village which they had left and " keep up two establishments ". It is obvious that the stream of migration was rolled back. Manufacture and industry in these towns declined, compelling more and more people to fall back on agriculture. Henceforth manufacture or industry did not pay its way thus increasing the dependence of the manufacturing labourers, artisans and proprietors for part of their maintenance on agriculture again. This started an increasing traffic between village and town, and the needs of cultivation on account of a growing dependence on it compelled many persons to keep their families in the village, while the head of the family strove to keep the family business ticking over. Miscellaneous services and professions hardly succeed in keeping a town in health, and the declining female ratio in these towns rather indicates a losing struggle with traditional patterns of manufacture and industry (in modern parlance, small scale cottage industry), their increasing inability to pay their way, and a growing dependence on agriculture of their population, so much so that whereas in the beginning of the process agriculture was a source of supplementary income to the declining profits in the urban trades, the tables were turned and agriculture became the mainstay of a large section of townsmen. This is evidence of residential country towns throwing back a section of its population on agriculture. It is a case of reversing the clock of rural urban economy. Rather than absorb the surplus population from the village, struggling to reach the town and earn a living, the situation introduced a mutually parasitic tension between town and village instead of an organic interdependence. Thus the declining female ratio in residential towns tells a different story from a similar phenomenon in the modern industrial town. Whereas in the residential towns the declining female ratio is a direct measure of their declining trade and manufacture, in the industrial towns the low female ratio is rather a direct measure of their expansion in which housing cannot keep pace with the growth of new industries. The latter is also a measure of the extent to which modern industrial labour regards his industrial assignment as a source of income which he is all too anxious to plough back into his plot of agricultural land as soon as he returns home. It is of interest that as far back as in 1929 some Rs. 250,000 used to be received in Barrackpur subtreasury every week from the post offices, most of which was money sent by mill workers to their own country by money order. (Evidence of M. M. Stuart, I.C.S., Subdivisional Officer of Barrackpur, before the Bengal Provincial Banking Enquiry Committee 1929-30, Report Vol. II, p. 33.) Unfortunately corresponding figures for 1950-51 could not be supplied by the Postmaster General, West Bengal. In the residential town agriculture is regarded as a supplement to decaying hereditary industry, while in the industrial town industrial earnings are regarded as a supplement to decaying agriculture at home. Since very large sections of the working population in the growing industrial towns of West Bengal are immigrants from other States of India and abroad, their earnings go to enrich their lives and standards in their home provinces. On the other hand since the majority of residents in residential towns are natives of this State, their growing dependence on agriculture consequent on the decay of traditional, small-scale cottage industries, merely intensifies overcrowding on the soil, and deepens the problems of employment and sustenance. The rural urban economy in these areas, instead of distributing the load of sustenance more evenly between agriculture and industry, has the unfortunate effect of putting the last straw on the camel's back.

19. That each one of these decaying residential towns flourished up to the middle of the 19th century has been mentioned in the section on Growth and Movement of Population in Chapter I. Brief mention may be made from Gazetteers to confirm the reasons advanced for their decay. In Burdwan district Kalna " was formerly one of the principal ports of the district in the days when the river was the main channel for trade but the river has silted up considerably, the East Indian and other Railways have diverted the traffic, and the prosperity of the town has long been declining. For several years also it was the focus of the terrible Burdwan Fever, which ravaged the district between 1862 and 1874 " (Gazetteer of Burdwan 1910, p. 196). In Katwa " steamers used to ply all the year round to the town, but owing to the silting up of the Bhagirathi and the opening of the East Indian Railway the commercial importance of the place has declined; the new railway line from Hooghly to Kalna will however be carried on to Katwa and should lead to a revival of its trade (*ibid.*, p. 200). " Brass and bell-metal work is manufactured in Dainhat, and weaving is carried on ; there is also some trade in salt, jute, grain, English cloth, cotton and tobacco. The town, which lies between Katwa and Kalna, was formerly considered one of the principal ports of the district. But the river is gradually receding from it and its prosperity has long been declining. It is now of little commercial importance " (*ibid.*, p. 192). In Birbhum district " the chief industry of Suri is the manufacture of palanquins and furniture. At Alunda, two miles distant from the town, striped cotton table covers and bedsheets, towels, white table cloths, mosquito nets, and other coarse cloth are produced. Tusser reeling, tusser-weaving, and cotton weaving are also carried on in the large village of Kalipur-Karidha a mile west of Suri. *Bafta* (mixed tusser and cotton cloth) said to be in no way inferior to the bafta of Bhagalpur is also produced at Karidha " (Gazetteer of Birbhum, 1910, pp. 130-31). In Bankura district " formerly a large factory of the East India Company was established in Sonamukhi, and numbers of weavers were employed in cotton-spinning and cloth-making. One of the earliest notices of Sonamukhi occurs in the records of the Board of Revenue, and consists of a complaint made by the Company's commercial Resident stationed there regarding obstruction to trade by the Raja of Burdwan, upon which an officer was deputed to make an inquiry, and the Raja was forbidden to interfere in any way with the commercial business of the Company's factories. The introduction of English piecegoods led to the withdrawal of the Company from this

trade, for the local products were not able to compete with imported European articles. Formerly also the town contained an indigo factory. At present silk weaving, pottery making, and the manufacture of shellac are the principal industries of the place. The industry last named was till 10 years ago large and prosperous" (Gazetteer of Bankura, 1908, p. 176). "Brass and bell-metal utensils are made on a fairly large scale at........... and Patrasair. The brass utensils manufactured in this district are much prized in native households elsewhere in Bengal, and considerable quantities are exported to Calcutta and other parts of the country. The indigo industry was formerly of considerable importance. There were out-factories in.........Patrasair......... . The industry has now completely died out. Conch-shell ornaments are made at Patrasair" (*ibid.*, pp. 115-16). In Midnapur district the chief industries of Ghatal "are the weaving of cotton and tusser silk cloths, the manufacture of bell-metal utensils and the preparation of earthen pots. The fabrics made are mostly of a common quality, cheap but durable. The industry is an old one, for the Dutch had a factory in the town; and in the early days of British occupation, a Resident was located here, Ghatal being practically the port for the Arambag and Ghatal subdivisions" (Gazetteer of Midnapur, 1911, p. 181). "Chandrakona was a flourishing place in the second half of the 17th century, and in Valentijn's map (*circa* 1670 A.D.) it appears as a large village on an unnamed river (the Silai) under the name of Sjandercona. (See paragraph 170 in Chapter I)" (*ibid.*, p. 174). In Kharar brass and bell-metal wares are manufactured on an extensive scale. J. G. Cummings in his *Review of the Industrial Position and Prospects in Bengal in 1908* wrote: "The whole village resounds with the beat of the hammer on the bell-metal. The manufacture of brass and bell-metal utensils, such as cups, plates, and cooking pots is carried on at Ghatal, Kharar, Midnapur, Chandrakona and Ramjibanpur. At the two places first named the industry is said to be more highly organised than in any other part of the Province. The masters there are enterprising and wealthy; they obtain the material in economically large quantities, *e.g.*, tin from the Straits Settlements, copper from Japan, etc.; they distribute the labour and pay the piece worker; and they have a steady demand from Bara Bazar in Calcutta. Some have more than 100 men in their factories, and it is said that out of a population of 9,000 at Kharar, 4,000 are metal workers" (*ibid.*, pp. 126-27). "In Ramjibanpur bell-metal articles are manufactured, and cloth weaving is carried on. The *hat* of Ramjibanpur is a large market for hand-woven cloths" (*ibid.*, p. 219). "The chief industry in Khirpai is cloth-weaving, a considerable number of the population being weavers. The industry was formerly of greater importance. In the 18th century the English had a large commercial factory for cotton and silk fabrics at Khirpai: while the Dutch used to send agents for their purchase. It also contained a French factory" (*ibid.*, p. 202). In Hooghly district, "Arambag is an old place, which was of some importance owing to its situation on the old Padshahi road from Burdwan to Midnapur. The ruins of two indigo factories can still be seen" (Gazetteer of Hooghly, 1912, p. 244). Hooghly-Chinsurah used to be a most important port, commercial and administrative centre, but declined with the growing importance of Calcutta. In recent years the establishment of factories and industries has revived the town. In 24-Parganas "Barasat was formerly a place of greater importance than at present. In the early part of the 19th century it was the seat of a college for military cadets, which they entered on their arrival from Europe. On this account the town has been called 'the Sandhurst of Bengal' (Gazetteer of 24-Parganas, p. 210). In Gobardanga "trade is carried on in jute and molasses, and there are several sugar-factories" (*ibid.*, p. 239). In Nadia district "Birnagar was once a large and prosperous town, but the epidemic of malarial fever in 1857 caused great ravages in the place, and it has been steadily declining ever since .... At one time the Ganges is supposed to have flowed past the place" (Gazetteer of Nadia, p. 167). "Chakdah used to be an important trade centre, but a change in the course of the river affected it adversely in this respect" (*ibid.*, p. 168). The decline in Krishnagar's population is due to the ravages of malarial fever, but it was also due to the decline in its importance as a seat of the local ruling prince. As late as 1910, L. S. S. O'Malley wrote: "Ranaghat carries on a large river traffic, and is one of the principal seats of commerce in the district" (*ibid.*, p. 187). "In the old days of the East India Company, Santipur was the site of a commercial Residency, and the centre of large Government cloth factories. The Government purchases of Santipur muslin, which then had a European reputation, averaged over 12 lakhs during the first 28 years of the 19th century. None of these factories are still in existence, the last ruins having been pulled down and sold between 1870 and 1880; only the name of the suburb Kuthirpara remains to indicate that there were once rows of *Kūthis* or factories in the neighbourhood. It is said that the commercial Resident enjoyed an annual salary of over Rs. 42,000, and lived in a magnificent house with marble floors, built by himself at the cost of a lakh of rupees: the Marquis of Wellesley spent two days there in 1802: the ruins of the house were finally sold for Rs. 2,000. The manufactures of Santipur are in a decaying condition. The cloth industry has been practically killed by the competition of machine made goods, and the weavers are no longer prosperous. The East India Company once had a sugar manufactory in the town, but this has met with the same fate as the cloth factories" (*ibid.*, pp. 189-91). In Murshidabad the decline of Berhampur consequent on the decline of Kasimbazar has already been mentioned in the section on growth and movement of population in Chapter I (paragraph 254). The decline of Murshidabad has been too obviously due to the decline of the Nawab's court, while the decline of Azimganj has been due to the decline of banking houses attendant on the decline of the Murshidabad court. "During the early days of British rule, Jangipur was an important centre of the silk trade and the site of a commercial residency. In 1802, Lord Valentia described Jangipur as 'the greatest silk station of the East India Company, with 600 furnaces, and giving employment to 8,000 persons'. He added that "silk then sold for Rs. 10-4 a seer. In 1835, when the Company's trading monopoly ceased, its filatures were sold to a Mr. Larulletto for Rs. 51,000" (Gazetteer of Murshidabad, p. 198). In Malda "Old Malda during the 18th century was a centre of cotton and silk manufactures and the French and Dutch had factories there as well as the English. The English factory was, however, transferred to Englishbazar in 1770 and the town began to lose its prosperity with the rise of Englishbazar. It has tended to decline throughout the 19th century. It is, however, still a considerable distributing centre of manufactured goods for the *barind* and does a large export trade in rice and jute" (Gazetteer of Malda, 1918, p. 92). In *Malda Diaries and Consultations* (1685-1693) published by the Asiatic Society of Bengal it is said that a person travelling from Englishbazar to Old Malda through Sahapur did not need to carry a light on account of the lights from shops on either side of the road all along the way and could hear a continuous tinkle of coins being told by tellers in the pay of shroffs.

20. In illustration of the point that it is really the immigrant population of West Bengal that has swelled the urban ratio in the general population in 1951,

Statement III.7 may be found interesting. Part (*a*) of the statement expresses the urban population as a percentage of the general population of West Bengal during 1901-51 while part (*b*) of the statement further analyses the over-all urban percentage of the State and districts into (i) urban population with Displaced urban population, (ii) urban population without Displaced urban population and (iii) urban population born in the State of West Bengal as a percentage of the general population of the State.

STATEMENT III.7(a)

Urban populations of districts expressed as percentages of their general populations, 1901-51

State and District	1951	1941 (according to published figures)	1941 (according to unpublished house lists)	1931	1921	1911	1901
West Bengal	**24·8**	**21·3**	**19·5**	**16·0**	**15·0**	**13·7**	**12·7**
Burdwan	14·8	11·8	10·8	8·2	6·7	6·1	5·7
Birbhum	6·5	5·8	5·3	2·2	2·7	1·0	1·9
Bankura	7·2	7·1	6·3	6·0	6·0	5·0	4·8
Midnapur	7·5	5·9	5·7	5·0	3·6	3·6	3·2
Hooghly	22·2	20·5	20·3	18·3	16·6	13·9	12·8
Howrah	32·4	28·8	24·0	23·2	21·9	21·3	20·7
24-Parganas	29·6	23·8	24·0	20·6	19·2	18·0	15·1
Calcutta	100	100	100	100	100	100	100
Nadia	18·2	13·8	14·2	11·9	11·2	10·3	10·3
Murshidabad	7·9	7·3	7·4	6·7	7·2	6·2	5·7
Malda	3·8	3·2	2·8	2·7	2·5	2·6	2·9
West Dinajpur	5·8	1·2	1·0	..	..	..	..
Jalpaiguri	7·2	3·3	2·8	2·6	2·1	1·8	1·9
Darjeeling	21·2	15·5	15·5	13·6	10·2	9·3	8·6
Cooch Behar	7·5	4·2	4·2	3·1	2·9	2·7	2·5
Sikkim	**2·0**	..				..	..

STATEMENT III.7(b)

Urban population in West Bengal in 1951 classified by persons born in the State and without Displaced population

State and District	Total urban population expressed as percentage of general population of the district	Urban populations without their Displaced populations expressed as percentages of general population without Displaced persons	Urban populations born in the State expressed as percentages of the general population of the district
West Bengal	**24·8**	**22·5**	**18·4**
Burdwan	14·8	13·8	8·6
Birbhum	6·5	6·1	5·4
Bankura	7·2	7·0	6·5
Midnapur	7·5	7·2	5·5
Hooghly	22·2	21·0	14·2
Howrah	32·4	30·7	23·4
24-Parganas	29·6	26·0	14·9
Calcutta	100	100	45·5
Nadia	18·2	17·5	9·5
Murshidabad	7·9	7·1	6.3
Malda	3·8	3·2	2·6
West Dinajpur	5·8	3·5	2·1
Jalpaiguri	7·2	4·8	2·1
Darjeeling	21·2	19·4	12·5
Cooch Behar	7·5	6·0	3·3
Sikkim	**2·0**	**2·0**	**1·3**

EMPLOYMENT IN TOWNS OF NATIVES OF THE STATE

21. Statement III.7(*b*) read with Statement III.7(*a*) is so significant, and its consluions are so obvious that no detailed comment is necessary. In no other district except Hooghly, Howrah, 24-Parganas, Calcutta and Darjeeling does the native urban population exceed 10 per cent. of its total population. More than 54·5 per cent. of Calcutta's population belongs to States and countries other than West Bengal, while in Howrah the native urban population constitutes only 23·4 per cent. of the district's general population. In Hooghly and 24-Parganas the percentages are 14·2 and 14·9 respectively. In Darjeeling it is 12·5. The percentage of 5 is exceeded in Nadia, Burdwan, Bankura, Murshidabad, Midnapur, and Birbhum. In Cooch Behar it is 3·3, and in Malda, West Dinajpur and Jalpaiguri it is as low as 2·6, 2·1 and 2·1 respectively.

22. Clearly, the cities and towns of West Bengal provide very little extra employment to its population driven away by agricultural overcrowding. The result is that more and more people compete in an already fearfully overcrowded agricultural economy. Only a very little is drawn away and sustained in non-agricultural livelihoods. There is hardly any complementary balance between agricultural and non-agricultural livelihoods, between rural and urban economy, hardly enough, that is, to trust the towns to absorb the surplus population of working age from the rural areas, or imagine them capable, in their present capacities, of providing fruitful employment in expanding industries. A percentage of 13·4 in 1951 is a sad commentary on the native population's inability to switch over from agriculture to industry and, as has already been noted in the section on Migration in Chapter I, whatever native population lives in the towns subsists more on commerce and miscellaneous sources and other services, and less on " Production other than Cultivation ". In the Industrial Zones the industries provide employment to large proportions of immigrants from other states and abroad : at least their cities and towns contain large populations born outside the State. Thus the native born population of West Bengal does not make as much use of its cities and towns in the industrial districts as it might and the advantages and amenities of these districts are largely enjoyed by immigrants. Very similar is the picture presented in non-industrial districts where even though the urban proportion is much less than 10 per cent. of the general population, immigrants form quite large proportions of the urban populations. Some explanation of this universal phenomenon in West Bengal ought to be forthcoming. That town life is unpopular with the people of the State is certainly not an explanation. Rather it begs the question. The female ratio in the 19th century in towns mentioned in Statement III.6 will bear this out. Statement III.8 shows the number of females per 1,000 males in the 25 residential towns of Statement III.6. It shows that towns were popular in 1872. Social changes in the last eighty years might have gone to make them still more popular, had not the economic situation stood in the way.

STATEMENT III.8

Number of females per 1,000 males in 25 residential towns of West Bengal, 1872-1951

Residential towns	1951	1941	1931	1921	1911	1901	1891	1881	1872
1 Kalna	870	807	851	842	903	910	1,028	1,146	1,081
2 Katwa	897	917	979	960	996	988	1,134	1,261	1,163
3 Suri	830	856	791	854	861	848	950	971	950
4 Ghatal	887	792	931	905	941	996	999	1,019	1,031
5 Hooghly-Chinsurah . .	851	772	736	790	828	911	943	1,027	1,031
6 Arambag . . .	867	887	907	911	982	974	1,005	1,084	961
7 Barasat	864	837	833	825	858	893	1,006	980	956

STATEMENT III.8—concld.

Residential towns	1951	1941	1931	1921	1911	1901	1891	1881	1872
8 Krishnagar	884	888	896	961	995	1,003	1,049	1,072	1,078
9 Ranaghat	842	819	799	828	891	974	1,084	1,156	1,079
10 Berhampur	869	848	807	812	828	876	918	1,025	826
11 Murshidabad	970	915	934	975	1,024	981	981	1,086	984
12 Jangipur	1,015	992	1,037	1,078	1,077	1,109	1,057	1,086	884
13 Dainhat	896	1,000	988	1,014	1,108	1,065	1,117	1,142	1,165
14 Sonamukhi	1,056	999	1,059	1,071	1,123	1,118	1,152	1,111	1,112
15 Patrasair	940	909	932	986	..	..	..	..	..
16 Kharar	958	908	936	908	875	946	966	..	..
17 Ramjibanpur	975	946	937	965	1,008	1,047	1,055	1,098	1,098
18 Chandrakona	958	922	924	990	1,013	998	1,010	1,023	1,014
19 Khirpai	926	1,006	995	1,017	1,007	1,018	1,033	1,032	1,032
20 Gobardanga	878	894	969	928	1,002	1,034	1,030	1,181	1,095
21 Birnagar	935	883	851	945	1,040	1,122	1,180	1,219	..
22 Chakdah	932	904	977	884	997	1,095	870	1,012	1,212
23 Santipur	979	1,067	1,080	1,186	1,191	1,149	1,174	1,166	1,168
24 Jiaganj-Azimganj	957	970	905	911	833	813	814	1,064	964
25 Old Malda	713	863	893	876	862	805	978	1,084	1,072

23. One might consider this question from another aspect and compare the ratio of females and of townsmen born in the district of enumeration or the State to the total urban population of districts. Statement III.9 shows the percentage of local born among townspeople and females per 1,000 males in local born of urban populations in 1951.

STATEMENT III.9

Percentage of local born among towns people and females per 1,000 males in local born of urban population, 1951

State and District 1	Percentage of townspeople born in the State of enumeration to urban population of district 2	Percentage of townspeople born in the district of enumeration to urban population of district 3	Females per 1,000 males found in the urban population of the district 4	Females per 1,000 males born in the State of enumeration found in the urban areas of the district 5	Females per 1,000 males born in the district of enumeration found in the urban areas of the district 6
West Bengal	**54·0**	**43·7**	**657**	**764**	**805**
Burdwan	58·3	48·4	777	783	763
Birbhum	83·9	80·4	851	795	787
Bankura	93·9	86·7	946	935	890
Midnapur	74·9	67·1	885	955	938
Hooghly	64·1	54·6	679	578	488
Howrah	72·0	59·9	610	678	676
24-Parganas	50·4	40·6	678	766	893
Calcutta	45·5	33·2	570	733	815
Nadia	52·4	47·7	927	1,045	1,033
Murshidabad	80·0	73·3	923	959	920
Malda	69·7	65·7	853	966	973
West Dinajpur	35·4	33·0	771	672	629
Jalpaiguri	28·6	24·1	679	1,059	1,094
Darjeeling	59·0	56·0	721	947	961
Cooch Behar	43·5	40·7	713	766	755
Sikkim	**66·3**	**66·3**	**686**	**833**	**838**

24. Columns 2 and 3 show that inter-district migration to urban areas in the State is much less than migration from other states of India and abroad. Migrants from other districts of the State do not seem to care much to which district they go for their livelihood, except when it is a question of going to Hooghly, Howrah, 24-Parganas or Calcutta; whereas migrants from outside and abroad seem to show preferences in filling up urban areas in Burdwan, Midnapur, Hooghly, Howrah, 24-Parganas, Calcutta, West Dinajpur, Jalpaiguri, Darjeeling and Cooch Behar. Urban areas in Nadia, Murshidabad and Malda have, however, taken large populations of Displaced persons.

25. If the female ratio were an index of the stability of the urban population, it would appear that towns in West Bengal might be classified under several categories: those (*a*) with a female ratio over 1,000; (*b*) with a ratio between 950 and 1,000; (*c*) with a ratio between 900 and 950; and (*d*) ratios below 900. An inverse correlation seems to exist between the prosperity of a town and its female ratio: a large female ratio seems to indicate an exodus of the males of the town to other areas in search of employment. The following statement classifies cities and towns according to their female ratios.

STATEMENT III.10

Cities and towns classified according to their female ratios in 1951

(*a*) Towns with a female ratio over 1,000: Bankura—1. Vishnupur 1,049, 2. Sonamukhi 1,056; Murshidabad—3. Jangipur 1,015:

(*b*) Towns with a female ratio between 950 and 1,000: Midnapur—1. Kharar 958, 2. Ramjibanpur 975, 3. Chandrakona 958; Nadia—4. Nabadwip 975, 5. Santipur 979; Murshidabad—6. Murshidabad 970, 7. Jiaganj-Azimganj 957.

(*c*) Towns with a ratio between 900 and 950: Burdwan—1. Asansol 937; Birbhum—2. Dubrajpur 944; Bankura—3. Khatra 927, 4. Patrasair 940; Midnapur—5. Khargpur Town 909, 6. Khirpai 926; Howrah—7. Uluberia 917; 24-Parganas—8. Rajpur 907, 9. Jaynagar-Majilpur 922, 10. Taki 915, 11. Bangaon 925; Nadia—12. Birnagar 935, 13. Chakdah 932, 14. Kanchrapara D. A. R. Colony 909, Murshidabad—15. Dhulian 941, 16. Kandi 924.

(*d*) All other cities and towns have female ratios less than 900.

26. It will be seen that except for the railway towns of Asansol and Khargpur none of the towns in the above statement are prosperous and enterprising. They are predominantly non-industrial residential towns, some of them sleepy hollows which have had their hey-day. The railway centres of Asansol and Khargpur show less disparity between the sexes than the mill towns. The reason seems to be that a large proportion of employees in railway workshops are skilled men who serve continuously for longer periods than the mill hands, enjoy housing amenities and have brought their wives to live with them. The more prosperous residential towns tend to have a female ratio between 700 and 850, while the flourishing industrial towns have a female ratio of about 600, which varies within 100 on either side. This accords with observations made before in Chapter I in connexion with migration into urban areas.

27. The following statement compares the female ratio in (i) Residential, (ii) Industrial, and (iii) Railway towns between 1881 and 1951.

STATEMENT III.11

Females per 1,000 males in residential, industrial and railway towns in West Bengal, 1881-1951

	1951	1941	1931	1921	1911	1901	1891	1881
Residential Towns .	837	816	828	858	874	907	948	1,002
Industrial Towns .	596	487	498	505	527	558	598	630
Railway Towns . .	838	696	658	643	687	775		

28. This is a very interesting statement inasmuch as it furnishes, (*a*) confirmation of the decay of the economic prosperity of old country towns which used to be flourishing centres of trade and industry not so very long ago; (b) the rootless, migrant, character of industrial labour and the utter disregard of industrial managements in respect of working class housing and other amenities as late as 1941, in consequence of which less and less migrant labourers at every successive decade brought their wives with them; (c) the comparative stability among railway workers and the steadily improving state of housing for them. The influx of Displaced population from Pakistan is largely responsible for improving the female ratio in residential towns in 1951, while a similar improvement in industrial towns in 1951 is due to (i) a greater realisation among industrial employers that on the stability, contentment and a local stake of the working class depends their own prosperity; (ii) that owing to the shortage of capital and the increased value of their stock and investments in this country all industries must take a long-term view of their career, instead of a make-hay-while-the-sun-shines outlook; and (iii) the better organisation of the working class through trade unions and other demonstrative organs. In railway towns, already in the days past when the railways were mostly in the hands of private companies, the latter could not but look after the housing of the working class because on a stable and experienced working class population depended the efficient, punctual running of railways. Housing was, therefore, a safe and profitable investment. This has been appreciated by the Union Government, in whom the rights of most railways now vest, and the recent railway town of Siliguri and the prospective railway town of Alipur Duar have been marked by the erection of durable houses for the railway staff before the tracks are set working.

29. There is thus hardly any considerable body of the true industrial proletariat in West Bengal,—a proletariat that has severed its roots in the country and agriculture and regards its destiny solely in terms of the industry to which it has attached itself. There has been no such transplantation and there will be few families where purely industrial working class blood has run through several generations. While on the one hand this second string of agriculture for industrial labour may have saved the country from disastrous famines and disorders in times of trade and industrial slumps by forcing unemployed industrial labour to fall back on agriculture at home in those times and thus helped to soften the impact, for instance, of the great economic crisis of 1929; and, while this connexion with agriculture slows down the onset of industrial crises, and dulls their edge a little; on the other hand, production continues to be inefficient, skill is prevented from accumulating as a tradition, and an uncertain labour supply leads to shyness of enterprise and much irresponsibility on the part of managements. The want of a settled labour force and the absence of investments in housing and other amenities for labour, keep small mills and factories on a speculative level for long periods, encourage them to 'wait and see' before sinking more capital and 'getting involved', or even to shut down and liquidate themselves as soon as snap profits are made. An unstable labour force therefore contributes generously to the element of gamble noticeable in industry. This leads to lack of international standards in quality of production and marketing, and virtually to all the defects of Indian industry listed by the Exports Promotion Committee in their Report of 1950. The evil effects of the absence of family life among industrial workers have already been described in the section on migration, paragraph 326 of Chapter I.

30. In England employment in industry is not of a temporary character

as in West Bengal, nor is the industrial population immigrant. There is very little sign now-a-days of a predominance of males in industrial centres in England. Industry in England therefore by no means spells the breaking up of the workman's family life or his removal from the place of his birth as in West Bengal, though, to those familiar with Indian conditions only, these are often felt to be necessary corollaries to the development of industry, and the disturbance of family life which industry in this country has come to involve is one of the reasons which have in some sense set people against it.

31. The temporary and uncertain character of industrial labour supply and the rarity of family life among industrial workers will be evident also from the age composition of the population in industrial towns around Calcutta, other industrial towns, residential towns and railway towns. The following statement shows the age composition of males and females in the four categories of cities and towns.

STATEMENT III.12

Age composition of males and females expressed as percentage of male and female population in (i) the Calcutta area (Calcutta, South Suburbs, Tollyganj, Garden Reach, Dum Dum group of municipalities, Baranagar, Howrah and Bally), (ii) other industrial towns, (iii) residential towns and (iv) railway towns, 1951

(Excluding Displaced persons)

Age group	Calcutta Area		Other Industrial towns		Residential towns		Railway towns	
	M	F	M	F	M	F	M	F
0—4	7	13	10	12	10	12	16	16
5—9	7	11	8	12	10	12	12	10
10—14	8	12	11	12	11	13	15	15
15—24	23	22	21	21	21	22	20	17
25—34	25	17	21	17	19	15	15	16
35—44	16	11	13	11	12	11	11	12
45—54	9	7	9	7	9	7	6	8
55—64	3	4	4	5	5	5	3	4
65 and over . .	2	3	3	3	3	3	2	2
TOTAL . .	100	100	100	100	100	100	100	100
0—14	22	36	29	36	31	37	43	41
15—54	73	57	64	56	61	55	52	53
55 and over . .	5	7	7	8	8	8	5	6

32. The high pointed peak in the age group 15-54 of the age curve in Calcutta Area, the less pointed peak in other industrial towns, the still less pointed peak in residential towns, and the almost smooth curve in Railway towns confirms the conclusions already drawn elsewhere in this chapter. The sharp difference between age groups 0-14 and 15-54 among males and the fluctuations in different types of towns reflects the different patterns of labour demand and supply, while the less sharp proportions between these two groups among females and the evenness of these proportions in industrial and residential towns show a definite progress in family life in all types of towns since 1921 when Thompson had the following observation to make:

> The larger proportion of girls from 10-20 in the country towns than in Calcutta is explained by the fact that it is easier for men from 20-30 to take their wives to such towns than to the Metropolis. Women between 20 and 40 form a higher proportion of the females in mill towns than they form in Calcutta and in the country towns. Again the figure for the country is about half way between that for Calcutta and the normal

In the case of the country towns the proportion is not higher than in the Province as a whole than would be accounted for by the low figures for little girls in them. In the mill towns the females of this age are supplemented by the women from other provinces whose customs do not prevent them from going out to work, and who find employment in certain factory processes, sometimes to the exclusion of men.

33. The following statement shows the age composition of males and females in the cities of Calcutta and around it (Tollyganj, South Suburbs, Garden Reach, Howrah and Bhatpara).

STATEMENT III.13

Age composition of males and females expressed as percentage of male and female population (excluding Displaced males and females) in six industrial cities in West Bengal, 1951

		Age group								
		0—4	5—9	10—14	15—24	25—34	35—44	45—54	55—64	65 and over
Calcutta	Males	7·0	6·3	7·9	23·6	24·9	16·1	9·1	3·5	1·6
	Females	13·4	11·2	11·8	21·4	16·7	11·2	7·4	4·3	2·6
Tollyganj	Males	13·7	9·8	10·5	21·7	20·4	12·8	6·1	3·2	1·8
	Females	15·0	10 6	11·4	22·5	15·4	10·3	7·1	4·3	3·4
South Suburbs	Males	10·3	8·9	9·9	21·7	21·3	14·4	8·3	3·7	1·5
	Females	14·5	11·5	10·6	23·6	15·9	10·1	7·3	4·1	2·4
Garden Reach	Males	7·8	9·0	9·8	20·2	24·1	15·4	8·3	3·7	1·7
	Females	12·1	13·0	12·1	19·6	21·2	9·1	7·1	3·5	2·3
Howrah	Males	7·3	7·0	9·0	23·4	25·1	15·1	8·2	3·4	1·5
	Females	11·4	10·6	13·8	22·1	16·9	10·3	7·4	4·7	2·8
Bhatpara	Males	6·8	7·0	8 8	16·9	25·0	19·0	10·5	4·2	1·8
	Females	10·8	12·1	11·4	20·2	19·5	13·0	6·0	4·3	2·7

34. Cities and towns have been classified according to population into 6 categories: I. 100,000 and over; II. 50,000—100,000; III. 20,000—50,000; IV. 10,000—20,000; V. 5,000—10,000; VI. Under 5,000. The following statement shows the progress in the number of cities and towns between 1872 and 1951 and their progress between one class and another through these decades.

STATEMENT III.14

Showing to which population class a city or town belonged in any particular census, 1872-1951

(Class I 100,000 and over, Class II 50,000—100,000, Class III 20,000—50,000, Class IV 10,000—20,000, Class V 5,000—10,000 and Class VI under 5,000)

All towns are municipalities unless otherwise indicated

Town	Population at the census of								
	1951	1941	1931	1921	1911	1901	1891	1881	1872
ALL CLASSES TOTAL	6,205,916	4,078,972	2,855,830	2,483,483	2,318,920	2,040,211	‡1,732,066	‡1,528,586	‡1,589,521
Class I	*3,609,891*	*2,895,227*	*1,365,735*	*1,226,998*	*1,177,018*	*1,078,527*	*858,495*	*648,490*	*669,426*
Calcutta	2,548,677	2,108,891	1,140,862	1,031,697	998,012	920,933	741,880	648,490	609,426
Howrah	433,630	379,292	224,873	195,301	179,006	157,594	116,606	II	II
Tollyganj	140,817	II	III	III	IV	IV	IV	IV	..
Bhatpara	134,916	117,044	II	II	II	III	IV	IV	IV
*Khargpur	129,636	II	II	III	IV	..	..	..	..
Garden Reach	109,160	II	II	III	III	III	III	IV	V
South Suburbs	104,055	II	III	III	III	III	III	III	..
Class II	*907,244*	*630,766*	*198,981*	*118,060*	*50,414*	..	..	*90,813*	*137,443*
Howrah	I	I	I	I	I	I	I	90,813	84,069
*Khargpur	I	87,185	58,134	III	IV	..	..	..	
Garden Reach	I	85,188	55,872	III	III	III	III	IV	V
Bhatpara	I	I	84,975	65,009	50,414	III	IV	IV	IV
Kamarhati	77,251	III	III	III	IV	IV	IV	IV	..
Baranagar	77,120	54,451	III	III	III	III	III	IV	..
Asansol	76,277	55,797	III	III	III	IV	..	..	..
Burdwan	75,376	62,910	III	III	III	III	III	III	III
Serampur	74,324	55,349	III	III	III	III	III	III	III
Titagarh	71,622	57,416	III	52,451	III	IV	..	..	..
South Suburbs	I	63,479	III	III	III	III	III	III	(a)53,374
Bally	63,138	50,397	III	III	III	IV	IV	IV	IV
South Dum Dum	61,891	III	IV	IV	IV	IV	IV	IV	V
Tollyganj	I	58,594	III	III	IV	IV	IV	IV	..
Hooghly-Chinsurah	56,805	III	III	III	III	III	III	III	III
Kanchrapara	56,668	III	IV	IV	(b)	..	..	..	..
Nabadwip	56,298	III	IV	IV	IV	IV	IV	IV	V
Berhampur	55,613	III	III	III	III	III	III	III	III
Naihati	55,313	III	III	III	IV	IV	V	V	V
Krishnagar	50,042	III	III	III	III	III	III	III	III

PROGRESS OF TOWNS SINCE 1872

STATEMENT III.14—contd.

Town	Population at the census of								
	1951	1941	1931	1921	1911	1901	1891	1881	1872
Class III	*941,366*	*899,243*	*694,337*	*683,220*	*529,792*	*366,963*	*‡338,299*	*‡282,681*	*‡336,729*
Chandernagore	49,909	38,284	27,262	25,423	25,293	26,831	..	..	..
Serampur	II	II	39,056	33,197	(e)49,594	44,451	35,952	25,559	24,440
Titagarh	II	II	49,584	II	45,171	IV	..	..	..
Panihati	49,514	27,410	IV	IV	IV	IV	..	..	..
Bankura	49,369	46,617	31,703	28,412	23,453	20,737	IV	IV	IV
Hooghly-Chinsurah	II	49,081	32,694	29,938	28,916	29,383	33,060	31,177	34,761
Garden Reach	I	II	II	45,567	45,295	28,211	27,924	IV	V
Midnapur	45,476	43,171	32,021	28,965	32,740	33,140	32,264	33,560	31,491
Barrackpur	42,639	21,773	IV	IV	IV	V	(d)35,547	(d)30,317	(d)36,392
Kamarhati	II	42,545	30,334	23,018	IV	IV	IV	IV	..
Santipur	42,418	29,892	24,992	24,792	26,703	26,898	30,437	29,687	28,635
Naihati	II	42,200	30,908	23,286	IV	IV	V	V	V
Berhampur	II	41,558	27,403	26,670	26,143	24,397	23,515	23,605	27,110
Jalpaiguri	41,259	27,766	IV	IV	IV	IV	IV	V	V
Burdwan	II	II	39,618	34,616	35,921	35,022	34,477	34,080	32,321
South Suburbs	I	II	39,499	33,345	31,533	26,374	30,967	26,378	II
Baranagar	II	II	37,050	32,084	25,895	25,432	22,556	IV	..
Bhadreswar	36,292	27,670	22,992	22,081	(e)24,853	IV	V	V	V
Basirhat	34,823	26,348	21,287	IV	IV	IV	IV	IV	IV
Halisahar	34,666	25,804	IV	V	IV	V	V	VI	V
Darjeeling	33,605	(f)27,222	(f)21,185	(f)22,258	IV	IV	IV	V	VI
Cooch Behar	33,242	IV	IV	IV	IV	IV	IV	V	V
Siliguri	32,480	IV	V	..	..	..	..	..	..
Budge-Budge	32,196	32,394	24,183	25,723	IV	IV	..	..	..
North Barrackpur	32,173	26,966	IV	IV	IV	IV	IV	IV	IV
Krishnagar	II	32,016	24,284	22,309	23,475	24,547	25,500	27,477	26,750
Champdani	31,543	31,833	25,365	24,652	(e)	..	..	..	..
*Kulti	31,363	IV	IV	..	..	..	..	..	..
Asansol	II	II	31,286	26,499	21,919	IV	..	..	..
Englishbazar	30,063	23,334	IV	IV	IV	IV	IV	IV	IV
Bansberia	30,622	23,716	IV	V	V	V	V	V	V
Nabadwip	II	30,583	IV	IV	IV	IV	IV	IV	V
Bally	II	II	30,347	23,209	22,394	IV	IV	IV	IV
Garalia	28,304	20,150	IV	IV	IV	V	V	V	..
Ranaghat	28,064	IV	IV	V	V	V	V	V	V
Rishra	27,465	(g)37,432	(g)26,868	(g)23,259	(c)	..	..	..	..
Kalna	IV	IV	V	V	V	V	V	IV	27,336
Raniganj	25,939	22,839	IV	IV	IV	IV	IV	IV	IV
South Dum Dum	II	25,838	IV	IV	IV	IV	IV	IV	V
*Kharagpur	I	II	II	25,280	IV	..	..	..	..
Baidyabati	24,883	25,825	IV	IV	(e)20,516	IV	IV	IV	IV
*Alipur Duar	24,886	..	..	..	..	..	..	..	..
Murshidabad	IV	IV	V	IV	IV	IV	IV	20,841	24,534
Bishnupur	23,981	24,961	IV	IV	20,478	IV	IV	IV	IV
Tollyganj	I	II	24,470	21,637	IV	IV	IV	IV	..
Kanchrapara	II	24,015	IV	IV	(b)	..	..	..	..
*Bangaon	23,364	V	..	..	..	..	..	..	..
Jiaganj-Azimganj	IV	IV	IV	IV	IV	IV	IV	IV	21,648
Bhatpara	I	I	II	II	II	21,540	IV	IV	IV
Chandrakona	V	V	V	V	V	V	IV	IV	21,311
Konnagar	20,233	(g)	(g)	(g)	(c)	..	..	..	..
Class IV	*592,498*	*370,726*	*371,760*	*302,408*	*381,962*	*397,090*	*358,647*	*339,949*	*220,643*
Baranagar	II	II	III	III	III	III	III	19,729	..
Bishnupur	III	III	19,696	19,308	III	19,090	18,190	18,863	17,436
Raniganj	III	III	16,373	14,536	15,497	15,841	13,772	10,792	19,578
*Kulti	III	19,423	11,574	..	..	..	..	..	..
Basirhat	III	III	III	19,267	18,331	17,001	15,109	14,843	12,105
Jiaganj-Azimganj	19,148	15,223	10,998	11,231	12,327	13,385	16,677	18,390	III
Darjeeling	III	III	III	III	(f)19,005	(f)16,924	14,145	V	VI
Jalpaiguri	III	III	18,962	(h)14,813	(h)11,765	(h)10,289	(h)10,200	V	V
*Kharagpur	I	II	II	III	18,957	..	..	..	..
Murshidabad	10,756	11,498	V	10,669	12,669	15,168	18,899	III	III
Nabadwip	II	III	18,861	15,584	12,480	10,880	13,334	14,105	V
Bankura	III	III	III	III	III	III	18,743	18,747	13,979
Bally	II	II	III	III	III	18,662	10,700	14,815	13,715
Khardah	18,524	V	V	V	..	..	..	..	..
*Burnpur	18,487	18,678	V	..	..	..	..	..	..
South Dum Dum	II	III	18,471	14,030	12,874	10,904	11,087	(i)14,108	V
Tollyganj	I	II	III	III	18,433	12,821	15,054	12,824	..
Baidyabati	III	III	18,486	16,471	III	17,174	18,380	14,477	13,332
Jangipur	18,255	16,903	12,796	10,739	11,408	10,921	V	10,187	11,361
Naihati	II	III	III	III	18,319	13,831	V	V	V
Suri	18,135	15,863	10,908	V	V	V	V	V	V
Balurghat	18,121	..	..	..	..	..	..	..	..
Kamarhati	II	III	III	III	18,015	13,216	11,722	10,253	..
Budge-Budge	III	III	III	III	17,982	13,051	..	..	..
Kalna	17,324	12,562	V	V	V	V	V	10,463	III
Ghatal	16,125	17,226	12,400	10,770	12,064	14,525	13,942	12,638	15,492
Uttarpara	17,126	13,610	V	V	V	V	V	V	VI
Englishbazar	III	III	16,907	14,057	14,322	13,667	18,818	12,490	12,859
Halisahar	III	III	16,770	V	(b)13,423	V	V	VI	V
Kalimpong	16,677	11,961	V	..	..	..	..	..	..
Kandi	15,220	16,652	12,616	11,787	12,836	12,037	11,181	10,661	12,016
Ranaghat	III	16,488	11,395	V	V	V	V	V	V

STATEMENT III.14—contd.

Town	Population at the census of								
	1951	1941	1931	1921	1911	1901	1891	1881	1872
Class IV—concld.									
Baduria	16,385	14,527	13,677	14,057	13,680	12,921	12,744	12,981	..
Rajpur	16,310	13,614	11,438	11,412	11,607	10,718	10,940	10,576	..
North Barrackpur	III	III	16,258	15,433	11,847	12,600	13,234	11,166	(j)16,824
†Barrackpur Cantt.	16,189	10,978	10,982	11,738	11,485	V	..	..	..
*Chittaranjan	16,162	..	..	..	..	..	..	..	..
Barrackpur	III	III	14,413	10,722	16,120	V	III	III	III
Titagarh	II	II	III	II	III	16,065	..	..	..
Barasat	16,027	11,230	V	V	V	V	V	10,533	[illegible]
Cooch Behar	III	16,000	11,837	11,461	10,841	10,458	11,491	V	V
Dhulian	15,935	12,613	V	V	V	..	..	..	..
Katwa	15,533	11,283	V	V	V	V	V	V	V
Raiganj	15,473	..	..	..	..	..	..	..	..
Chakdah	15,372	V	VI	V	VI	V	V	V	V
Bhadreswar	III	III	III	III	III	15,150	V	V	V
Rampurhat	15,144	12,224	V	V	..	..	..	..	..
Kanchrapara	II	III	15,005	10,332	(b)	..	..	..	..
Asansol	II	II	III	III	III	14,906	..	..	..
Bolpur	14,802	13,856	..	V	..	..	..	..	..
Sonamukhi	12,352	14,667	10,989	10,644	13,275	13,448	13,462	V	12,565
*Ichhapur Defence Estate	14,600	..	..	..	..	..	..	..	..
Bansberia	III	III	14,221	V	V	V	V	V	V
Jaynagar-Majilpur	13,355	14,218	V	V	V	V	V	V	V
Kotrung	14,177	V	V	V	V	V	V	V	V
Bhatpara	I	I	II	II	II	III	14,185	10,289	11,288
Garulia	III	III	14,033	13,096	11,580	V	V	V	..
Dum Dum	14,002	V	V	VI	VI	VI	..	..	V
Tamluk	13,599	12,079	V	V	V	V	V	V	V
Arambag	11,460	V	V	V	V	V	V	10,507	13,409
Taki	13,138	11,051	V	V	V	V	VI	V	V
*Bauria	12,977	..	..	..	..	..	..	..	..
*Contai	12,738	V	V	..	..	..	..	..	..
*Uluberia	12,575	..	..	..	..	..	..	..	..
Garden Reach	I	II	II	III	III	III	III	12,456	V
*Dubrajpur	12,205	10,812	..	..	..	..	..	..	..
North Dum Dum	12,156	V	VI	VI	V	VI	(k)10,396	V	V
*Kanchrapara D. A. R. Colony	12,019	..	..	..	..	..	..	..	..
*Neamatpur	11,756	..	..	..	..	..	..	..	..
Kurseong	11,719	V	V	V	V	VI	VI	VI	..
Panihati	III	III	11,699	10,161	11,118	11,178	..	..	..
Chandrakona	V	V	V	V	V	V	11,309	12,257	III
Ramjibanpur	V	V	V	V	V	10,264	V	10,909	11,166
Siliguri	III	10,487	V	..	..	..	..	..	..
*Barakar	10,440	V	..	..	..	..	..	..	..
Kharar	V	V	V	V	V	V	10,088	..	..
Class V	*110,436*	*152,907*	*184,156*	*184,724*	*155,023*	*168,560*	*162,646*	*145,145*	*167,784*
Ramjibanpur	7,539	6,036	6,230	6,700	8,481	IV	9,977	IV	IV
Rampurhat	IV	IV	9,960	8,440	..	..	..	..	..
Halisahar	III	III	IV	7,318	IV	9,922	6,512	VI	5,201
†Barrackpur Cantt.	IV	IV	IV	IV	IV	9,888	..	..	..
*Ondal	VI	9,856	VI	..	..	..	..	..	..
Ranaghat	III	IV	IV	9,652	9,850	8,744	8,506	8,683	8,871
*Diamond Harbour	9,818	..	..	..	..	..	..	..	..
Jangipur	IV	IV	IV	IV	IV	IV	9,794	IV	IV
*Barakar	IV	9,771	..	..	..	..	..	..	..
Dhulian	IV	IV	9,767	8,435	8,298	..	..	..	..
Jaynagar-Majilpur	IV	IV	9,755	8,408	9,245	8,810	8,233	7,685	7,772
Barasat	IV	IV	8,672	8,211	8,790	8,634	9,754	IV	IV
South Dum Dum	II	III	IV	IV	IV	IV	IV	IV	9,718
Kalna	IV	IV	9,567	8,424	8,603	8,121	9,680	IV	III
Khardah	IV	9,568	6,018	5,486	..	..	..	..	..
Cooch Behar	III	IV	IV	IV	IV	IV	IV	9,535	7,145
Kharar	5,023	5,570	5,736	6,580	8,839	9,508	IV	..	..
Murshidabad	IV	IV	9,483	IV	IV	IV	IV	III	III
Barrackpur	III	III	IV	IV	IV	9,419	III	III	III
Kotrung	IV	9,401	7,160	6,846	6,574	5,944	5,164	5,747	6,811
Uttarpara	IV	IV	9,350	8,657	7,378	7,086	6,489	5,307	VI
Chandrakona	5,717	6,411	6,016	6,470	8,121	9,309	IV	IV	III
Garden Reach	I	II	II	III	III	III	III	IV	9,258
Bhadreswar	III	III	III	III	III	IV	9,639	9,241	7,417
Baruipur	9,238	7,130	6,483	5,114	6,375	VI	VI	VI	..
Suri	IV	IV	IV	8,915	9,131	8,692	7,481	7,848	9,001
Tamluk	IV	IV	9,095	8,348	8,048	8,085	6,612	6,044	5,849
Naihati	II	III	III	III	IV	IV	9,077	6,576	7,246
Arambag	IV	8,992	7,461	7,857	8,048	8,281	8,326	IV	IV
*Bangaon	III	8,990	..	..	..	..	..	..	..
Chakdah	IV	5,494	VI	5,216	VI	5,482	8,618	8,989	8,218
Nabadwip	II	III	IV	IV	IV	IV	IV	IV	8,863
Kalimpong	IV	IV	8,776	..	..	..	..	..	..
Beldanga	..	6,002	8,745	8,354	..	..	..	..	..
*Sainthia	8,707	7,584	..	..	..	..	..	..	..
Kurseong	IV	8,497	7,451	6,445	5,574	VI	VI	VI	..
*Hili	8,346	6,952	..	..	..	..	..	..	..
Taki	IV	IV	8,234	5,200	5,202	5,089	VI	5,120	5,261
Dainhat	8,149	5,036	VI	VI	5,342	5,618	5,144	5,789	7,562
Khirpai	VI	VI	VI	VI	VI	5,045	5,706	6,295	8,046
*Jhargram	7,975	..	..	..	..	..	..	..	..

STATEMENT III.14—concld.

Town	Population at the census of 1951	1941	1931	1921	1911	1901	1891	1881	1872
Class V—concld.									
Katwa	IV	IV	7,772	6,823	6,904	7,220	6,699	6,820	7,963
Jalpaiguri	III	III	IV	IV	IV	IV	IV	7,036	6,598
Bansberia	III	III	IV	6,382	6,108	6,473	6,783	7,031	7,861
*Disergarh	7,842	..	..	..	..	..	..	..	..
Canning	7,836	..	..	..	..	..	..	..	..
Garulia	III	III	IV	IV	IV	7,875	7,746	6,536	..
Dum Dum	IV	7,622	5,350	VI	VI	VI	..	..	(i)5,179
Darjeeling	III	III	III	III	IV	IV	IV	7,018	VI
Gobardanga	6,519	5,544	VI	5,112	5,070	5,865	6,704	6,154	6,952
*Batanagar	6,874	..	..	..	..	..	..	..	..
Siliguri	III	IV	6,067	..	..	..	..	..	..
Bolpur	IV	IV	..	5,896	..	..	..	..	..
*Dinhata	5,848	VI	VI	VI	VI	VI	..	..	..
*Burnpur	IV	IV	5,740	..	..	..	..	..	..
*Patrasair	VI	5,731	VI	5,435	..	..	..	..	..
North Dum Dum	IV	5,974	VI	VI	5,047	VI	IV	5,201	5,680
Sonamukhi	IV	IV	IV	IV	IV	IV	IV	5,590	IV
Old Malda	VI	VI	VI	VI	VI	VI	VI	VI	5,262
*Contai	IV	6,746	5,259	..	..	..	..	..	..
*Memari	5,005	..	..	..	..	..	..	..	..
Class VI	*44,481*	*30,103*	*40,861*	*38,073*	*24,711*	*29,071*	*19,979*	*21,508*	*7,546*
North Dum Dum	IV	V	4,535	4,369	V	4,906	IV	V	V
Taki	IV	IV	V	V	V	V	4,936	V	V
Chakdah	IV	V	3,986	V	4,931	V	4	V	V
Dum Dum	IV	V	V	3,855	3,818	4,920	..	..	V
*Patrasair	4,789	V	4,854	V	..	..	..	..	..
Dainhat	V	V	4,845	4,843	V	V	V	V	V
*Garhbeta	4,806	..	..	..	..	..	..	..	..
Halisahar	III	III	IV	V	IV	V	V	4,718	V
Old Malda	4,498	3,845	2,779	3,145	3,750	3,743	4,178	4,694	V
Khirpai	4,246	3,623	3,693	3,756	4,605	V	V	V	V
Gobardanga	V	V	4,525	V	V	V	V	V	V
Kurseong	IV	V	V	V	V	4,469	3,522	4,083	..
Uttarpara	IV	IV	V	V	V	V	V	V	4,389
Birnagar	3,893	1,813	2,341	2,305	2,654	3,124	3,421	4,321	..
*Ondal	4,288	V	3,110	..	..	..	..	..	..
*Mathabhanga	4,256	3,008	2,431	2,008	1,740	1,283	..	..	..
Baruipur	V	V	V	V	V	4,217	3,922	3,742	..
*Khatra	4,127	..	..	..	..	..	..	..	..
Darjeeling	III	III	III	III	IV	IV	IV	V	3,157
*Haldibari	3,162	1,568	1,246	1,502	1,380	1,112	..	..	..
*Gangtok	2,744	..	..	..	..	..	..	..	..
*Dinhata	V	3,536	2,516	2,200	1,833	1,207	..	..	..
*Tufanganj	2,316	1,412	..	..	..	..	..	..	..
*Mekliganj	1,356	1,298	..	..	..	..	..	..	..

‡ Does not include Population of Chandernagore.
* Non-municipal Town.
† Cantonment.
(a) Includes Tollyganj.
(b) Kanchrapara was separated from Halisahar in 1917.
(c) Rishra-Konnagar formed out of Serampur Municipality during decade 1911-21.
(d) Including Barrackpur Cantonment.
(e) Champdani was formed out of Baidyabati and Bhadreswar Municipalities during decade 1911-21.
(f) Includes Jalapahar and Lebong.
(g) Figures relate to Rishra-Konnagar Municipality.
(h) Includes Buxa Town.
(i) Includes Dum Dum Cantonment (now Dum Dum Municipality).
(j) Includes Garulia.
(k) Includes Dum Dum Municipality.
(l) Relates to Dum Dum Cantonment (now Dum Dum Municipality).

CLASSIFICATION OF TOWNS

35. The following is an abstract on the above statement showing the number of towns in each class and the proportion of the population of urban areas in each class expressed as a percentage of the total urban population.

STATEMENT III.15

Towns classified by population, 1872-1951 (the figures in brackets indicate the number of towns in the particular population class for that decade)

Population Class of towns	Percentage of population of class of town to total urban population								
	1951	1941	1931	1921	1911	1901	1891	1881	1872
I 100,000 and over	58·7 (7)	56·1 (3)	48·3 (2)	49·9 (2)	51·3 (2)	53·6 (2)	49·6 (2)	42·4 (1)	43·5 (1)
II 50,000—100,000	14·7 (14)	13·6 (10)	7·0 (3)	4·8 (2)	2·2 (1)	.. ..	.. ..	6·0 (1)	8·9 (2)
III 20,000—50,000	14·5 (27)	18·6 (28)	23·6 (22)	24·3 (22)	22·0 (17)	16·9 (12)	19·2 (11)	18·5 (10)	21·9 (12)
IV 10,000—20,000	9·6 (40)	8·0 (27)	13·1 (26)	12·3 (23)	16·6 (27)	19·7 (29)	20·7 (26)	22·2 (26)	14·3 (16)
V 5,000—10,000	1·8 (15)	3·3 (21)	6·5 (24)	7·5 (26)	6·8 (21)	8·4 (22)	9·4 (21)	9·5 (21)	10·9 (23)
VI Under 5,000	0·7 (11)	0·4 (8)	1·5 (12)	1·2 (9)	1·1 (8)	1·4 (9)	1·1 (5)	1·4 (5)	0·5 (2)

NOTE—The number of towns in each category for certain years in this statement will differ from statement in the Tables Volume because towns shift-up or counted as such later have been taken into account throughout the period.

36. The following statement in four parts shows the changes in the number per 1,000 of urban population living in towns with a population of (*a*) under 5,000; (*b*) 5,000 to 10,000; (*c*) 10,000 to 20,000; (*d*) 20,000 and over during 1901-51.

STATEMENT III.16

Number per thousand of urban population residing in towns with population of four categories, 1901-51

(a) under 5,000

State and District	1951	1941	1931	1921	1911	1901
West Bengal	7	4	15	12	11	14
Burdwan	13	..	61	51	..	..
Birbhum	..	..	..	..	..	..
Bankura	94	..	72	..	..	..
Midnapur	36	19	27	39	45	..
Hooghly	..	..	..	..	..	..
Howrah	..	..	..	..	..	..
24-Parganas	..	..	15	16	9	43
Calcutta	..	..	..	..	..	..
Nadia	10	16	74	29	95	39
Murshidabad	..	..	..	..	..	..
Malda	128	141	141	183	208	215
West Dinajpur	..	.	..	..	..	..
Jalpaiguri	..	..	..	..	..	209
Darjeeling	..	..	..	..	..	256
Cooch Behar	221	403	344	336	314	

STATEMENT III.16—concld.

(b) 5,000—10,000

State and District	1951	1941	1931	1921	1911	1901
West Bengal	**18**	**33**	**65**	**75**	**68**	**84**
Burdwan	65	111	178	159	221	240
Birbhum	126	126	478	1,000	1,000	1,000
Bankura	..	62	..	89	..	..
Midnapur	104	132	234	290	329	350
Hooghly	..	65	118	166	186	210
Howrah	..	..	..	..	..	..
24-Parganas	22	51	75	89	89	200
Calcutta	..	..	..	..	..	..
Nadia	..	47	..	186	123	179
Murshidabad	..	50	305	191	99	..
Malda	..	..	..	..	..	..
West Dinajpur	199	1,000	..	..	..	..
Jalpaiguri	..	..	..	..	..	..
Darjeeling	..	146	513	225	227	..
Cooch Behar	117	..	..	..	..	..

(c) 10,000—20,000

State and District						
West Bengal	**96**	**80**	**131**	**123**	**166**	**197**
Burdwan	277	255	215	152	165	360
Birbhum	874	874	522	..	..	..
Bankura	131	159	456	493	232	610
Midnapur	168	156	89	111	305	280
Hooghly	124	48	161	92	..	240
Howrah	49	..	..	..	..	100
24-Parganas	118	87	240	257	458	444
Calcutta	..	..	..	..	..	..
Nadia	131	142	352	195	156	137
Murshidabad	588	605	397	506	588	680
Malda	..	..	859	817	792	785
West Dinajpur	801	..	..	..	..	..
Jalpaiguri	..	..	1,000	1,000	1,000	1,000
Darjeeling	301	386	..	..	773	791
Cooch Behar	..	597	656	664	686	744

(d) 20,000 and over

State and District						
West Bengal	**879**	**883**	**789**	**790**	**755**	**705**
Burdwan	645	634	546	638	614	400
Birbhum	..	..	..	..	..	..
Bankura	775	779	472	418	768	390
Midnapur	692	693	650	560	321	370
Hooghly	876	887	721	742	814	550
Howrah	951	1,000	1,000	1,000	1,000	900
24-Parganas	860	862	670	638	444	313
Calcutta	1,000	1,000	1,000	1,000	1,000	1,000
Nadia	850	795	574	590	626	645
Murshidabad	412	345	298	303	313	320
Malda	872	859	..	..	..	..
West Dinajpur	..	..	..	..	..	..
Jalpaiguri	1,000	1,000	..	..	..	..
Darjeeling	699	468	487	775	..	..
Cooch Behar	662	..	..	..	..	..

37. It will be interesting to examine the changes in the composition of communities during 1911-51 in the cities and towns of the four important districts of West Bengal: Burdwan, Hooghly, Howrah and 24-Parganas.

STATEMENT III.17

Number per one thousand persons of same religion who live in towns, 1911-51

		Burdwan	Hooghly	Howrah	24-Parganas
All religions	1911	61	139	213	180
	1921	67	166	219	192
	1931	82	183	232	206
	1941	118	205	288	238
	1951	148	222	324	296
Hindu	1911	58	141	203	205
	1921	64	167	213	219
	1931	79	181	228	233
	1941	122	214	294	271
	1951	147	229	347	341
Muslim	1911	72	138	243	139
	1921	79	174	232	144
	1931	95	195	236	160
	1941	129	213	260	179
	1951	136	170	197	164
Christian	1911	585	702	811	247
	1921	512	734	818	267
	1931	678	669	669	272
	1941	617	845	645	146
	1951	726	771	755	241
Jain	1911	402	1,000	1,000	185
	1921	176	317	778	864
	1931	490	1,000	822	865
	1941	125	567	1,000	900
	1951	251	229	854	945
Parsis	1911	..	1,000	878	962
	1921	500	..	1,000	286
	1931	1,000	1,000	876	274
	1941	..	..	..	..
	1951	1,000	1,000	484	843

SECTION 2

CONCLUDING REMARKS

38. Growth, movement and migration, births, deaths and livelihood patterns in the cities and towns of West Bengal have been discussed in Chapter I. It is unnecessary to repeat the conclusions here. A note on conurbation around Calcutta City will be found in the census report on that city.

39. It appears that the old urban centres of industry and commerce have rapidly decayed in the course of the last one hundred years and new industrial cities have even more rapidly replaced them. But the patterns of commodity production and markets have changed; small, highly organised industries, skill and craftsmanship being replaced by powered, economically large industries, monolithic in organisation and designed for mass production. The artisan has given way to the industrial 'hand'. Ancient crafts have given way to modern commodity production. Markets have changed engineered by the self-interest of the East India Company which on the one hand forbade export of finished goods from the State so that factories in England might flourish for the markets of the world, and, on the other, with the help of the Permanent Settlement shifted the emphasis on agriculture, in order to effect a smooth changeover from an economy based on Pre-Industrial Revolution Organisation of industry to an agricultural economy, so that the country with a minimum of peasant or working class unrest might change from an exporter of finished goods to an exporter of agricultural produce and raw material; from an importer of raw materials to an importer of finished goods. The Mutiny of 1857 was the last but one rising on a big scale in which a confused and inchoate peasant and artisan-craftsman-working class unrest also threw its weight into the issue which, however, was preeminently a struggle of feudal overlords and native princes jockeying for position. But this confused and retrograde alliance alienated the more progressive sections of the native population and sealed its fate. By its swiftness and completeness the preternaturally rapid decay of indigenous industries withheld a proper perspective of its full and horrifying implications, as a consequence of which progressive thought in the land, glad to be rid of anarchy and uncertainty, delighted to have come in contact with the world, pleased with the democratic laws of its rulers, and like all middle classes throwing its fortunes with the winning side, missed the economic and industrial aspects of the Mutiny (which were, however, secondary) and helped to put it down. Henceforth the way was made clear for the exploitation by foreign capital of this land. The other incident was the Moplah Rebellion of 1921 over which the Government quickly threw a communal mantle and suppressed it ruthlessly. This started, however, as a genuine peasant struggle, and was the last one until 1942.

40. The reasons underlying the decay of old residential towns have been set forth earlier in this chapter. The reason why new towns have failed to enrich the country in which they are established, have failed to bring about a satisfactory rural-urban interdependence, to contrive true and comprehensive points of contact between rural and urban economies, but instead have helped to perpetuate a dualistic economy, characteristic of all Asian economies, is far too obvious to make a mistake about. It is the domination of foreign capital in all industrial centres in the East, capital which forms more capital at site with the help of indigenous resources and labour, but scrapes it (the increase in capital) away

to the country or countries from which it originally emanated, where alone, and not in the east where it is multiplied, it is employed to be translated into real wealth or exported in fresh lots for further increase. This process employs an industrial town in the east as a factory house or rather a catalytic agent for the formation of more capital but leaves its economy neither enriched nor substantially transformed. It certainly provides subsistence employment but very little wealth that can be ploughed back into the self-same country. Thus the domination of foreign capital in the east helps to perpetuate a dualistic economy: in the rural areas an impoverished subsistence and in the towns a market economy from which the wealth is exported elsewhere; and between which stands the wall of foreign capital allowing "limited points of contact" between them. The demolition of this wall remained a confused, inarticulate grope in the dark until 1928, and became a conscious aspiration of all freedom struggles in the East after that year. This is why even with five large industrial districts in this small State the town has failed to provide wealth and employment to the population of the country or to bring about a happy balance between agriculture and industry. The two are by no means complementary in the present economic set-up in West Bengal and industry fails to draw off the surplus driven away by agricultural overcrowding on the soil. Rather, industry largely tends to throw some of its population back on the soil. In the same way the village and the town are not complementary—neither are their economies except in a very limited way.

41. It has been argued that the reason why the Bengali does not go into industry as mill-worker as much as a man from other States of India is his opulence in agriculture which makes him disdain work at the mill. As the next chapter will show this story of agricultural opulence is largely a myth and as even a brief account of industries in decayed towns teaches us he is not loth to work with his hands at boiler and furnace. The reason is probably to be found elsewhere and it seems that what is held as a virtue for some is held as a shortcoming against the Bengali workman. The latter is more a precision worker, an artisan, a craftsman with a sense and gift of individual design, a sense of freedom of fabrication, than a mass producer. For these gifts the large industries in the State today do not provide scope by the million, but wherever these skills are called for the Bengali is offered employment and fills it.

42. The other great and overriding result of which he is being steadily rightful place in mill and factory is his gradual devitalisation in health as a result of which he is being steadily squeezed out of all spheres requiring physical endurance and strength. This must lead to a discussion of the other alarming feature of greater and still greater submarginal living in country and town. While it may be conceded that in the industrial cities and towns industrialisation has kept some pace with urbanisation, though the latter has certainly outpaced the former, the progress of industrialisation in residential towns has certainly not kept pace with urbanisation. Since this has been so, there is no satisfactory explanation of the speed and rate at which towns have grown in the last thirty years except by assuming that the population squeezed out by agricultural overcrowding from the village vainly tries to scrape a living on miscellaneous employment, by maintaining two establishments one in the village and another in the town, and by making the best of a submerginal living in a mixture of agricultural and pursuits other than agriculture. Unfortunately figures prior to 1951 are lacking in census reports which might confirm how submarginal, sketchy and unsatis-

factory the livelihood of the urban population generally is, and how it lives a life of misery between the pillar of agriculture in the village it has left and the post of urban occupation it has come to seek. What is available after all and has been discussed confirms the general impression, (*a*) that industrialisation has lagged behind growth of urban tracts even in the industrial zone, (*b*) that agricultural overcrowding and sub-marginal living are both the unsatisfactory cause and effect of the quickened pace of urbanisation, (*c*) that urbanisation is but an ineffectual escape from the starkness of the agricultural scene and (*d*) that the state of commerce, industry, and general services in the town affords little substantial succour to the man who has fled the village.

CHAPTER IV

AGRICULTURAL CLASSES

SECTION 1

PRELIMINARY REMARKS

THE STATISTICS principally discussed in this chapter are those mentioned in the opening paragraph of Chapter I and Union Tables B.I (Livelihood classes and sub-classes) and B.II (Secondary Means of Livelihood). In addition Subsidiary Tables printed in Part IC of this Report show:

IV.1 Agricultural Classes per 1,000 persons of general population; number in each class and sub-class of 10,000 persons of All Agricultural Classes; and comparison with agricultural holdings by size.

IV.2 Livelihood Class I (cultivators of land wholly or mainly owned and their dependants). Number per 10,000 persons of Livelihood Class I in each sub-class; Secondary Means of Livelihood of 10,000 persons of Livelihood Class I.

IV.3 Livelihood Class II (Cultivators of Land wholly or mainly unowned and their dependants). Number per 10,000 persons of Livelihood Class II in each sub-class; Secondary Means of Livelihood of 10,000 persons of Livelihood Class II.

IV.4 Livelihood Class III (Cultivating labourers and their dependants). Number per 10,000 persons of Livelihood Class III in each sub-class; Secondary Means of Livelihood of 10,000 persons of Livelihood Class III.

IV.5 Livelihood Class IV (Non-cultivating owners of land; agricultural rent receivers and their dependants). Number per 10,000 persons of Livelihood Class IV in each sub-class; Secondary Means of Livelihood of 10,000 persons of Livelihood Class IV.

IV.6 Active and Semi-active workers in Cultivation.

IV.7 Progress of Cultivation during three decades.

IV.8 Components of Cultivated Area *per capita* during three decades.

IV.9 Land Area *per capita* (1951); and Trend of Cultivation *per capita* during three decades.

2. In a rural agricultural economy where almost all the land is tilled in small plots by peasant families, each undertaking to plough, sow, reap, manage the land, store and market the crop, the prosperity and progress of the population comes to be willy-nilly intimately connected with the country's land-revenue and rent system. The latter forms the atmosphere in which the agricultural population breathes and lives and any demographic discussion of an agricultural population, especially where its future is concerned, must necessarily introduce, however briefly the background of its land-revenue system.

3. In West Bengal this background is the Permanent Settlement and it should be briefly mentioned here how the Settlement came into being, whether it conforms to the time-honoured traditions of the land or whether it was a new departure coinciding with the advent of a British market economy in the eighteenth century.

4. Volume II (pages 129-240) of the Report of the Land Revenue Commission on Bengal gives an admirable and succinct account of the "Indian Land System, Ancient, Mediaeval and Modern (with Special Reference to Bengal)" by Radha Kumud Mookerji, a member of the Commission. For a handy reference this little treatise of just over a hundred pages is hard to beat, and although it is interspersed with the opinion of the author himself (with whom the reader may not always agree) he is careful to quote his authority for every pronouncement. While it is unnecessary to repeat what he has already documented and substantiated it may be interesting to quote the opinion of the Government on the Permanent Settlement as expressed from time to time.

5. In 1579 the Mughal Emperor Akbar created the *Diwani* of the lower provinces of Bengal to keep a check upon the Nawab-i-Nazim of the Bengal subah and hold him from becoming an 'overmighty subject'. About 150 years later with the decline of the central power, Murshid Kuli Khan, who shifted his seat from Dacca to Murshidabad to occupy a more central position in his domain, appropriated to himself the two offices of both Nizamat (governance) and *Diwani* (collection of revenue). He came at a time when already fissiparous tendencies were gaining the upper hand and struck heavily on Zemindars. He carried the Mughal system of collection of revenue to the logical limit by measures of the greatest severity, striking both politically and economically, by dispossessing Zemindars and introducing a new class of farmers of revenue which the British seized upon after 1765. "From the tenor of the measures pursued by Murshid Kuli Khan", says R. K. Mookerji (*ibid.*, page 213), "it would appear that the country was then assessed to the utmost amount it would bear". Shuja-ud-din Khan who became *Nazim* in 1725 based his settlement on a new principle, *viz.*, the capacity of the Landlord (or farmer) to pay and not on the capacity of the tenant, or on a proportion of the produce and the capacity of the soil. The consequence of this principle was a substantial increase of revenue by means of resumptions and additional imposts known as *abwabs*. The theory of this *abwab* was that the Zemindars were making large additional profits, legal or illegal, from the cultivator, in which the State had no share (*ibid.* page 209). In his Minute of 18 June 1789 John Shore was of the opinion that the Nawab's additions to revenue in the shape of *abwabs* were against the Mughal Constitution, that the imposts levied by the Nazims or Zemindars were naturally passed on to the ryots. "The Nazims exacted what they could from the Zemindars and great farmers of revenue, whom they left at liberty to plunder all below, reserving to themselves the prerogative of plundering them in their turn, when they were supposed to have enriched themselves with the spoils of the country" (paragraph 39 of his Minute). No calculation was made of the proportion which the new levies bore to the produce of the lands, and they were not supported by the improvement of the country in opulence, agriculture, or population, in a period of wars and unrest from Murshid Kuli Khan to Kasim Ali. But Kasim Ali Khan, Nazim of Bengal during 1760—1763, although he realised for the State "nearly all that the ryots had paid", as a result of which his "demand was a mere pillage and rack-rent" because it amounted "in one or two years to an increase of revenue exceeding the augmentation of nearly the two preceding centuries" paragraphs 42, 43, 45 and 77, Shore's Minute), yet maintained a balance of power and popularity by restoring a section of the ancient Zemindars (whom Ramsbotham in his History of Land Revenue described as "practically impossible to

dispossess by constitutional methods, if he performed his customary duties attached to a Zemindary"), among the Farmers whom Murshid Kuli Khan had introduced and whom Kasim Ali Khan still preserved as an instrument of convenience.

6. It was at this juncture that the East India Company, having established supremacy on the field of battle in Plassey in 1757, agreed to accept the offer of *Diwani* from the Mughal emperor, which it had turned down first in 1758, again in 1761 and for the third time in 1763. But in 1764 Raja Daulat Ram (father of Maharaja Raj Ballabh) advised Robert Clive that "he should ask for a *Sanad* of the *Diwani* in favour of the Company which being obtained the entire management of the country would devolve into the hands of the Company". In 1765 Robert Clive, acting on this advice, secured from the Mughal Emperor Shah Alam the *Sanad* or Official grant of the *Diwani* of Bengal for the East India Company. The Nawab was once more confined to *Nizamat* or governance.

7. What followed between 1765 and 1793 is too well known to need recounting. The Company, inexperienced in the intricacies of the land revenue system, had no better precedent to fall back upon than Kasim Ali Khan's practice, and carried it to its logical ambition of collecting the largest amount of money in the quickest possible time. It shifted from Zemindars to Farmers when the latter could pay, and from the latter to the former when they could not. In his committees of circuit the minutes of which form the most valuable evidence of those confused, troublous, horrible and tragic times, the Governor-in-Council alternated between Zemindars and Farmers. The Zemindar was his bad conscience because he was backed by tradition although he was not pliant enough, while the Farmer was the man of the future who could 'deliver the goods'. The conferment of the *Diwani*, which James Mill observed amounted to a revolution much greater than the change from Hindu to Muslim masters, compelled a logical gravitation towards accepting the Farmer of revenues in preference to the old Zemindar and as early as in 1775 the Court of Directors of the East India Company in their Minute of 15 September remarked: "We have reason to believe that not less than one-third of the Company's lands in these provinces are or have lately been held by the Banians of English gentlemen. The Governor's Banian stands foremost and distinguished by the enormous amount of his farms and contracts". Between 1765 and 1777 "lands were let in general too high, and to find out the real value of the lands, the most probable method was to let them to the highest bidders and also to dispose of the farms by public auction. This proved, however, such a source of competition that lands in general were overrated" (minute of Warren Hastings in Council, 8 March 1775). This typically British understatement conceals the enormous flight of wealth through the medium of these auctions, and through the Banians of the Company's officials who bid for them, to Great Britain, a flight which in its enormity and cynical disregard of the country's plight is without a precedent in history. The period (1772—77) presented a story of "huge deficits, defaulting Zemindars, deserting ryots, and absconding farmers". Mookerji (*ibid.*, page 217) says: Middleton considered overassessment and public auction of farms as causing the famine of 1770 and insisted on "a universal remission of revenue". Reports of distress were made by District Collectors even in 1783, *e.g.*, Patterson of Rangpur and Rooke of Purnea. Walpole described the Company's 'tyranny and plunder as making one shudder', while Chatham described their "iniquities so rank as to smell to earth and heaven".

8. Meanwhile in the worst famine of recorded history according to W. W. Hunter, 35 per cent. of the total and 50 per cent. of the agricultural population perished in 1770 and "in 1771 more than a third of the cultural land was returned in the public accounts as 'deserted'. In 1776, the entries in the column exceeded half of the whole tillage. For the first 15 years after the famine, depopulation steadily increased". Bankim Chandra Chatterjee writing his *Kapal Kundala* in the nineteenth century betrayed a strange blind spot when he saw in this desolation merely the ill governance of the Nazim and not the stark portrait of plunder of the Company.

9. Between 1772 and 1789 collection of revenue continued to be ruthless and cynical through a combination of old Zemindars and new Farmers over short-term settlements. It was at this juncture that the *Fakir* (the spiritual leader of the Mussalman) and the *Sannyasi* (the spiritual leader of the Hindu, and the bulwark of the ancient Zemindar) rebellions occurred as a covert stand of the ancient landed interests against the Nawab and the Company's tax-collectors; but the struggle petered out partly because it was inchoate and uncoordinated and was no match for the superior might of the Company, and partly because the English succeeded in diverting popular feeling against the Nawab Nazim who was still nominally the keeper of law and order. By 1789, however, the issue was more or less settled by the virtual demolition of old Zemindars and the rise of a new class of farmers, erstwhile banians to officials who were now "willing to play". The question centred on the total amount of revenue to be imposed. John Shore pointed out in his Minute of 1789 that when Philip Francis had maintained that Bengal was grossly overassessed, and Grant had held that Bengal was underassessed, both were being influenced by the circumstances of their times. Francis was speaking of the period of the Quinquennial Settlement which was notorious for its revenue demand being at its highest as a result of unfettered farming. Grant, on the other hand, wrote at a time of scarcity during the years 1784—1787 and of consequential decreased Government demand. Following the famine of 1770, there was another famine in 1784 succeeded by a flood in the eastern province in 1787 and partial scarcity in 1788.

10. James Grant's recommendation was that settlement should be made of the *Diwani* lands at the full assets of the year 1765 on the basis of the highest Mughal assessment of Kasim Ali Khan. The agitation of District Collectors, of Verelst, Francis, Becher and Shore, was of little avail in reducing the assessment. Grant computed the gross revenue claimed in 1765 at Rs. 26·8 million (*sicca*). The gross revenue actually realised in 1784 was Rs. 26 million (*sicca*). Thus while the revenue established in 1765 was not realisable and brought on the severest famine, depopulation, and desolation and cultivation contracted to less than half during the two decades of scarcity that followed, a revenue of Rs. 24·5 million from land alone was realised in 1784, and the revenue demand of the Permanent Settlement in 1793 was pitched at a still higher amount of Rs. 26·8 million (*sicca*) on the basis of previous years. As the celebrated Fifth Report in 1812 was not tardy in pointing out, "the amount of the Land Revenue which was now (1793) in Bengal to be fixed for ever", was the amount which, in the opinion of the Directors, would "prove equal to what they had, after consideration of the exigencies of government, and of a reserve proper for extraordinary services, already had it in view to obtain". That is, the revenue fixed under the Permanent Settlement was what the Company was in need of and anxious to secure and not what the soil

could yield. It was, as R. K. Mookerji admirably summarised it, "really fixed upon the present price of a future profit" or to use a modern cliche, the Permanent Settlement "mortgaged the future". For, what else could a fixation of Rs. 26·8 million in 1793 mean but "to include in advance the cash value of future agricultural developments of the country and to take credit in the present for the unearned increments of the future", when already in 1763, much before the famine of 1770, at a time when the ancient Zemindars and a fairly settled class of farmers since Murshid Kuli Khan's time were in full possession of their lands and a teeming peasantry, Kasim Ali Khan's assessment of Rs. 24·7 million was reduced to an assessment on paper, and only Rs. 6·5 million could be actually collected? It was true that the collecting agency was supine, upon which the Mughal Emperor sought to replace it by the new military might of the British, who were then no more than just another set of farmers, but the conclusion seems unavoidable that the Permanent Settlement demands were based on the East India Company's needs and not on the facts of actual Zemindary receipts of ryoti rental of those days.

11. On such a background Cornwallis naturally could not get the ancient Zemindars, who had already been broken, to toe the line and created a new class of farmers, who unhampered by tradition or conscience ("roots that clutch"), could be ruthless, with whom he could mortgage the future of agricultural developments for all time, who, he fondly hoped, would, with time, which was not in an hour-glass but in perpetuity, eventually transform itself into a squirearchy, and whom he could trust to reduce the country to an agricultural land and to draw more and more people away from indigenous trade, commerce and industry and leave the spheres so abandoned to be filled up by manufactured imports from England and abroad. The new farmers in their turn, in order to be able to pay the Company's revenue, were obliged to throw baits to attract people from other occupations to extend cultivation in waste lands and thus throw open the flood-gates of iniquitous systems of extortionate produce rents and *abwabs* in every district.

12. The ultimate assessment on which the Permanent Settlement was based had no reference to the assets of the ryot. "It was, therefore, quite natural", says R. K. Mookerji (*ibid.*, page 220), that, in return for this exorbitant assessment, the Permanent Settlement offered to the Zemindars an absolute property in the prospective assets to accrue from the extension of cultivation and reclamation of vast areas of untenanted wastes and jungles then covering more than a third of the total area of the province as estimated by Lord Cornwallis, and as much as four-fifths as estimated by Grant. Lord Cornwallis knew that he was driving a very hard bargain with the Zemindars by his speculative assessment. In his letter, dated March 6, 1793, he wrote to the Court of Directors explaining 'that it was the expectation of bringing the extensive waste and jungle lands into cultivation and reaping the profits of them that have induced many of the Zemindars to agree to the Decennial Jumma assessed upon their lands'.

Thus apart from the financial needs of the Company, the Permanent Settlement was resorted to as an economic measure to speed up the economic development of the country on the basis of agriculture as its main industry. It imparted a strong impetus to extension of cultivation by securing its fruits in advance to those who would labour for it. It attracted capital to land in which it could be invested most profitably. It rehabilitated the Zemindars on a stable foundation, created land as a source of wealth and of individual prosperity as the foundation of social stability and national welfare, and paved the way of the growth of population and reclamation of waste lands by the magic property which turns sand into gold. The total cultivated area of the Province has now increased three times since the Permanent Settlement.

Continues R. K. Mookerji on page 234.

In general, it may be stated that the Zemindars brought the wastes and jungles under cultivation by (*a*) clearing jungles, draining swamps and marshes at their expense; (b) offering temporary exemption of rents and progressive rents to tenants; (c) supplying money and seeds to cultivators and paying for their maintenance before they could gather in their crops; and (d) bringing cultivators from elsewhere and settling them on their lands at their expense. All this activity and industry on the part of the Zemindars as a consequence of the Permanent Settlement has received a judicial acknowledgement in the Great Rent Case of 1865. In a word, it is the Zemindars that made roads, drained swamps, excavated tanks, dug wells, and also laid the basis of the cultural development of the country by establishing schools and other charitable institutions. This kind of enterprise on the part of the Zemindars was later availed of by the Government itself with reference to the reclamation of the Sundarbans which were let out in lots to capitalist Zemindars between 1825-1838. It was impossible for the Government to find tenants who could lay out capital for clearing jungles and reclaiming wastes. It is beyond the power of any tenantry to undertake such extensive processes of reclamation attended with risks.

It is sometimes assumed that the natural growth of population automatically brings about extension of cultivation, but such extension cannot apply to lands requiring outlay to fit them for settlement. On this subject the following remarks of the great economist, Thorold Rogers (*Political Economy*, page 153), may be quoted: 'There is not a shadow of evidence in support of the statement that inferior lands have been occupied and cultivated as population increases. The increase of population has not preceded but followed this occupation and cultivation. It is not the pressure of population on the means of subsistence which has led men to cultivate inferior soil but the fact that these soils being cultivated, in another way, or taken into cultivation, an increased cultivation became possible. How could an increased population have stimulated a greater labour in agriculture, when agriculture must have supplied the means on which that increased population would have existed? To make increased cultivation the cause of improved agriculture is to commit the absurd blunder of confounding cause and effect.'

Continues R. K. Mookerji:

Indeed, it is the Zemindars alone who could help tenants to make cultivation profitable by improving irrigation, building bunds, damming streams and otherwise trapping water for use in the dry season, supplying improved seeds, arranging for improvements of the breeds of cattle, making roads, and instituting *hats* and bazars to open up the rural areas to civilisation. In this way also the Zemindar capitalists are responsible for introducing the cultivation of such new crops as indigo and jute, silk and sugarcane, for which a large organisation was necessary at the beginning. In some cases, the capitalists were notorious for their treatment of cultivators as slaves, as in the case of the indigo industry, where they were compelled to grow indigo on any plot pointed out by the planter, and, on failure, was oppressed and tortured with impunity, and also were compelled to receive payments at rates dictated by the capitalists. The development of Tea industry in Assam presents also a similar history. The abuses of capitalism have not marked the history of jute industry, but the grower is still exploited by a ring of capitalists who cannot be controlled by the Zemindar. But the fact of the matter is that all these agricultural developments were due to a large investment of capital to which the ryots were not equal.

13. R. K. Mookerji has been quoted at length to obviate quoting R. C. Dutt again, another great student of Indian economics. Mookerji virtually repeats the arguments advanced by R. C. Dutt in his Open Letters to Lord Curzon in the beginning of the century in support of the Permanent Settlement and the benefits it conferred wherever it was promulgated. R. C. Dutt advanced other reasons in support which it has gone out of fashion to quote: (*a*) that the Permanent Settlement, by virtue of its low incidence of rent, has preserved the peasantry of Bengal contented, prosperous and better able to withstand famine; (*b*) that, while not injuring the populace a fixed and dependable revenue paid for all the subsequent British campaigns in India and the cost of consolidation; and (c) that the Settlement created a band of loyal gentry.

14. It is difficult to find corroboration in the course of events of the

nineteenth century for much that R. K. Mookerji and R. C. Dutt have described as the beneficent effects of the Permanent Settlement and no less a person than the Governor-General-in-Council as early as 1902, whom one would imagine foremost among the staunchest champions of the Permanent Settlement, took the pains of disavowing almost all the good that R. C. Dutt and Mookerji claimed as having flowed from the Permanent Settlement.

15. It is not difficult to imagine that a thing which had such an evil foundation and an extortionate demand could not produce much good, and indeed immediately after the Settlement, following the ruin of the ancient Zemindars which the new farmers replaced, "great transfers of landed property, by public sale and dispossession of Zemindars, took place in an extreme degree during several years". It does not take elaborate research to refute all the arguments advanced by Dutt and Mookerji in defence of the Permanent Settlement, but it may be interesting to take brief stock of the political and social changes that the Settlement brought about in the life of Bengal:

Following the previous theory and practice of the Muslim rulers from whom they took over the administration, the British took as a premise the principle that the proprietary right in the soil was vested in the sovereign, and then proceeded to introduce English ideas of private property. (The Abbe Dubois observed at the end of the 18th century that Malabar 'was the only province in India where proprietary right has been preserved intact to the present day. Everywhere else the soil belongs to the ruler, and the cultivator is merely his tenant'.) Two schools of thought prevailed at different times and in different areas, one in favour of landed aristocracy and therefore seeking to set up a body of landlords of the English pattern, the other anxious to maintain a body of peasant proprietors. The first school was in the ascendant in 1793, when the Permanent Settlement was made, and there was a wholesale creation of landlords, with a permanent property in the land, in Bengal, Bihar, and some adjoining districts of Madras and the United Provinces. This was done in pursuance of a definite economic theory by Lord Cornwallis, who aimed at establishing a squirearchy. This was to take over the landlord rights of government. There was to be a kind of self-expropriation by the State in order to carry out a doctrinaire theory. Nothing, he maintained, could be so contrary to the public interest as that the land should be retained as Government property. Private landlords with an assured and permanent title were necessary in order that the land might be reclaimed and cultivation extended—a very relevant consideration after the terrible famine of 1770, when it was estimated that one-third of the country lay waste for want of cultivators. A tenure for a limited period of, say, ten years could not, he argued, be a sufficient inducement to clear the waste. 'Failing the claim of right of the Zemindars', he wrote, 'it would be necessary for the public good to grant a right of property in the soil to them or to persons of other descriptions'. A landlord class was, in his opinion, a social and political, as well as an economic, necessity on account of its potentialities for good and the contribution which he expected it to make to the general welfare of the country by encouraging agriculture and improving the condition of the tenantry.

The Zemindars of whom he wrote were a heterogeneous collection of men, including farmers and Collectors of revenue, who were removable at the pleasure of the government and also territorial magnates holding extensive estates, which were handed down from father to son, and in which they exercised powers. All were referred to as Zemindars, which means simply landholders, and all were placed on the same footing and received rights of proprietorship which had been vested in the State. It was not, however, absolute proprietorship, for it was subject to the payment of land revenue and their rights were also limited by those of subordinate tenure holders and the customary rights of rent-paying ryots, as indeed the ownership of the State had been. It was not intended to change the relations between them and the ryots. The rights of the latter were specifically recognised by the regulation implementing the Permanent Settlement, which set forth, in declaratory terms, that the ryots were entitled to fixity of tenure subject to the payment of the customary or established rates of rent (this was a meaningless piety as the demand of the Permanent Settlement was not based on the assets of the ryot, as has already been pointed out, although Cornwallis, anxious that 1770 should not repeat itself, could not but set down this paper safeguard—A.M.). The position of the new landlords was therefore somewhat analogous to that of the old English lord of a manor in which there were farmers holding by copyhold, so that, though the lord of the manor owned the estate, his tenants also possessed various rights and interests, which prevented him from having absolute proprietorship.

The security of the land revenue and certainty in its realisation were among the objects of the Settlement. The land revenue was fixed and made permanent, and it was hoped that the landlords would be equally permanent. The falsity of this hope was soon apparent. The landlords were required to pay their revenue regularly and punctually whether the seasons were good or bad and whether they got rents from their tenants or not, and their estates were liable to be sold up for arrears of revenue on the first default. It was 'so nominated in the bond'; the loss of the whole estate was 'the penalty and forfeit of the bond'. This was regarded, not unnaturally, as an odious innovation. Landlords in Bengal told Buchanan Hamilton, when he was engaged in his statistical survey early in the nineteenth century, that they preferred the old regime. It was true, they said, that they had been oppressed and ill-treated by the Mughal officers, but the harshness of the latter could be mitigated by bribery, and there was at any rate no such thing as selling their land when payments of revenue were in arrears, 'which was a practice they could not endure'. They were in fact between the devil and the deep sea. They found it difficult to collect their rents *because they claimed more than the customary rate* (italics are mine—A.M.), and the tenants, unwilling to pay an enhanced rent, refused to pay anything at all. Their estates were sold up by government for arrears of revenue and then resold to new purchasers in such numbers that by the end of the first quarter of the nineteenth century the old class of Zemindars had been largely replaced by a new class, many of them absentee landlords. A proprietary middle class had been created —as early as 1829 Lord William Bentinck wrote of a vast body of rich landed proprietors connected for the most part with Calcutta (A. B. Keith, Speeches and Documents on Indian Policy 1750—1921, Vol. 1, p. 215)—but it was not the class which it had been intended to establish and preserve.

16. It was this class of proprietors, enriched by the plunder of millions of poor peasants, who brought about a cultural resurgence in the city. The mouthpiece was Rammohan Roy. This resurgence has often been mistakenly called the Indian Renaissance often fondly so by the class which were its beneficiaries. This so-called renaissance bore the indelible stamp of the class among whom it was noticed and it was pre-eminently confined to the city and among these absentee landlords whom Bentinck had in mind. This renaissance was, characteristically enough, brought to fruition by an alliance with the ruling power by a class of absentee landlords and Banians aspiring to be 'junior partners' away from the village. This 'renaissance' did not touch the rural economy of the country at all. The country at large practically did not exist for this 'renaissance'. It was only after 1850, when the Indigo Commission of 1860, the Bengal Land Law of 1859, the Report of the Royal Commission on Famine in 1880-81, and the Bengal Tenancy Act in 1885 came after an era of great peasant unrest that the 'renaissance' in the city took any notice of the country at all.

17. To rêturn from this digression and continue with the extract:

> The Permanent Settlement also failed to give security to the tenantry. It was acknowledged that they had rights which were not extinguished by the grant of a proprietary interest to the Zemindars. The regulation, already mentioned, after reciting that it was the duty of the ruling power to protect all classes of people, and particularly those who from their situation were helpless, declared that the Government would, when it thought fit, enact regulations for the protection of subordinate tenure holders and cultivators. These excellent sentiments were not implemented, a regulation made in 1794 merely providing that the civil courts were to decide disputes about land. In 1819 the Directors of the East India Company lamented that the object of the Permanent Settlement, in so far as it concerned the security and happiness of 'the most numerous and industrious class of the community', had been so imperfectly attained that instead of their rights being maintained they had not even been ascertained. Tenants were rack-rented and evicted by their landlords, to whom Government gave extraordinary powers with the twofold object of safeguarding the revenue and preventing estates being broken up or sold. The landlords were given authority to evict tenants, distrain and sell their property, and even seize their persons, without

recourse to the courts of law. The tenant had no lease or documentary evidence of his rights; all he could do was to bring a civil suit against his landlord in order to recover his rights after they had been infringed.

It was already evident that the expectation that the landlords would exercise a beneficent influence was illusory. It was indeed opposed to the traditional Indian idea of the duties and obligations of superior landholders, which cannot be better explained than in the words of Sir George Campbell:

'To expect of them to perform the duties of an English landlord, to build, and plant, and introduce improved agriculture and improved machinery, if it ever was expected, was a mere chimera, and not reasonably to be looked for under the circumstances. These are not the functions of a native landlord. If a man encourages and protects the ryots who break up his waste and till his lands, and deals faithfully and equitably by them, he is considered to do his duty. If he further acts the part of a capitalist money-lender and advances money and seed, to be repaid with interest at harvest time, he does something more; and if the interest exacted is not too exorbitant, he is a model landlord'. Taking them as a whole the landlords were not prepared to deal faithfully and equitably by their tenants in the absence of any legal measures compelling them to do so. The magistrate of one district in Bengal wrote in 1810 of a general system of rack-renting and exactions practised by the Zemindars, their agents, and underlings, and of arbitrary demands enforced by stocks, duress, and battery of the persons of the cultivators. The magistrate of another district, describing the illegal cesses which were added to the rents, declared that not a child could be born, not a son or daughter married, not even one of 'the tyrannical fraternity' of Zemindars could die without a visitation of calamity to the ryot. There was in fact degradation and widespread loss of rights, and this was realised at the time. In 1815 the Marquess of Hastings warned the Directors of the East India Company that what he called 'the class of village proprietors' was in train of annihilation and would soon be extinct unless measures were taken for their protection. Any remedy that might be proposed might, however, be too late, for 'the licence of twenty years which has been left to the Zemindars will have given them the power and they have never wanted the inclination—to extinguish the rights of this class, so that no remnants of them will soon be discoverable'.

In order to preserve their rights, Lord William Bentinck proposed in 1832 that if a resident cultivator paid the same rate of rent for a consecutive period of twelve years, neither he nor his successors should become the subject of any enhanced demand. This period eventually became the legal term of prescription, entailing what is called occupancy right, which was given *longo intervallo*, statutory recognition by the Bengal Land Law of 1859. That was the first of a number of legislative measures which were designed to give the tenantry in different provinces what are called in Ireland the three F's, *viz.*, fixity of tenure, fair rents, and freedom of sale, and which in many cases restored rights which they had lost. In the Punjab, for example, the immediate effect of the Punjab Tenancy Act in five districts was to restore occupancy rights to 63,000 persons, who had been reduced to the position of tenants at will.

The efforts of the State were directed more to the securing and safeguarding of equitable terms of tenure for the cultivators than to the fixation of rents. Although, however, rents were not fixed by State agency, the State intervened to limit the power of the landlords to raise them by providing that they could be enhanced only at stated intervals and by imposing a legal limit on the proportion by which they could then be enhanced.

18. This extensive quotation is from pages 705-709 of a General Survey by L. S. S. O'Malley, Census Superintendent of 1911 and author of many District Gazetteers, in his *Modern India and the West* published in 1941. It refutes many of the claims made by R. C. Dutt and R. K. Mookerji on behalf of the "Zemindars" ushered in by the Permanent Settlement. There remains to be examined the contention of these two authorities that, owing to the Settlement in perpetuity of the Zemindars, (*a*) the latter were able to extend cultivation and make the land prosperous again, (*b*) that they contributed liberally to the extension of cultivation and made real investments of their own, and (*c*) that the Permanent Settlement brought peace and contentment among the peasantry and by its low incidence of rent built up a province-wide resistance to famine among the peasantry. It will be useful to consider the worth of these claims because they are intimately concerned with the growth of population and means of sustenance in the nineteenth century.

19. As has already been explained the Permanent Settlement anticipated and capitalised the value of improvements and clearing of wastes likely to be taken up by a settlement in perpetuity and fixed the demand on this value. R. K. Mookerji says that "in 1788 Grant had proposed that the Company's demand be restricted to *Assul, Abwab, Kaifiyat,* and *Tawfur* or the ascertained legal (*sic*) exaction at the time of the Diwani, subject to a deduction of established amount for all the mofussil charges, and those for native management of collections" (p. 216). Earlier, at p. 209, Mookerji explains what these terms are: "It was Murshid Kuli Khan in fact who first introduced the system of exactions by *abwabs, kaifiyat,* which was an increase on the previous collections, and *taufir* which was the resumption of a concealed surplus. An account of these *abwabs* is given below:

	Rs.
Abwabs imposed by Murshid Kuli Khan (1722-1725), Shuja-uddin Khan (1725-1739), and Aliverdi Khan (1740-1756)	4,223,467
Kaifiyats mainly imposed by Kasim Ali Khan (1756-1763) .	4,523,563
Taufir imposed by Kasim Ali Khan (1756-1763) . . .	3,162,358
TOTAL *Abwabs* .	11,909,388

"These imposts had the effect of increasing the land revenue demand of Bengal from Rs. 14,248,186 in 1722 to Rs. 25,624,223."

20. R. K. Mookerji then goes on to explain *abwabs,* connecting it with the problem of 'secreted' lands. "The *abwab* generally was imposed on the *asal jama* to the extent of about 1 anna or so extra in the rupee. Up to 1739, the *abwabs* were not felt to be a burden, because the excess was covered by the increase in the value of land. After 1739, at the time of Nawab Aliverdi Khan, these *abwabs* assumed their sinister significance. First, the Central Government imposed the *abwabs* by guess work and not by any actual measurement of the land revealing any extension of cultivation to justify the additional impost. The Zemindar naturally distributed this additional impost with increased profit to himself among the minor revenue agents such as *Talukdars,* or *Chaudhuries,* and they in turn realised, with profit to themselves, the excess from the unfortunate ryots. Therefore, the burden of *abwabs* fell in the last resort upon the unfortunate ryot. The answer lies in the simple fact that a great deal more land was brought into cultivation since the *Asal Jama* had been fixed. The extra land which was not recorded and assessed is described as 'secreted land' in the Board of Revenue Minutes. It was the produce of these 'secreted' lands which really helped the cultivator to pay the gradually increasing demands. There was, however, a limit to the cultivation of these 'secreted' and waste lands. By the time of Mir Jafar, cultivators were unable to bear these excesses and *abwabs,* and the greatest distress fell on the revenue agent and the ryot alike. The lot of the ryot after 1740 was one of increasing insolvency. It did not improve even with the Permanent Settlement of 1793. What added to the distress of the ryots was that the *abwabs* were indiscriminately levied at different periods by the Government, Zemindars, Farmers, and even by the inferior Collectors. For instance, Zemindars and Farmers levied arbitrary duties upon all goods and necessaries of life passing by water through the interior of the country. There were also fines imposed for petty crimes and misdemeanours. These were called *Baze Jama.* There was even a tax levied upon marriage called 'Haldari'."

21. The Permanent Settlement lumped *the Asal Jama* and *Abwabs* and pitched its demand on a total of both. Rather, it was based more on enormous *abwabs* than on meagre *Asal Jama.* The Company therefore had to keep its eyes

tightly shut when the *abwabs* were passed down on the tenant in the way described above until the situation steadily deteriorated and cried out more and more loudly for protection. In 1812 the Fifth Report disclosed that Cornwallis had estimated the cultivable wastes of Bengal at one-third of its total area, while others had estimated it at one-half to two-thirds. The Report further says that the cultivator was expected to have two-fifths and the Government three-fifths of the gross produce of land. Of this three-fifths, the Zemindar got one-tenth equal to three-fiftieths of the whole produce together with *nankar* or grants of land for their subsistence. Shares of produce were also given to the *Mokuddim* (head cultivator of the village), *Pausban* or *Gorayat* (who guarded the crop), the *Putwarry* (village accountant), and the *Kanungo* (confidential agent of Government, the depository and promulgator of the established regulations). These were creatures of the farmer of land revenue; naturally they squeezed a great deal out of the ryot.

22. The Fifth Report exposes the dilemma, or doublefaced hypocrisy, whatever one may prefer to call it, of the Court of Directors in imposing the Permanent Settlement. While, on the one hand, they "lamented the want of better data" of the assets from land, and in fixing the revenue demand "for ever", "they did not wish to expose their subjects to the hazard of oppressive practices, by requiring more," on the other hand, if the demand thus fixed was excessive, it was "on consideration of the extent of land which lay waste throughout the Province", and also in accordance with "what had formerly been the practice of the native Government in participating in the resources derivable from its progressive cultivation". This last sentence clearly legalised and made a virtue of *abwabs* which was declared illegal only as late as 1885 by section 74 of the Bengal Tenancy Act.

23. It is necessary to examine to what extent the Zemindars brought the wastes and jungles under cultivation, as both R. C. Dutt and R. K. Mookerji have maintained, "at their own expense". It is not difficult to appreciate that since the Government, by the Permanent Settlement, made to Zemindars a gift of the right to *abwabs*, a share of which it appropriated to itself, these exactions were liberally employed to reclaim waste lands. The period between 1793 and 1885 is strewn with the litter of many famines and stories of oppression of the ryot and a list of the many Regulations and Acts the Government were compelled to promulgate from time to time to prevent another 1770 and to restrain the landlord is also a list of the many serious peasant unrests preceding each of them. The Zemindar seemed to stop at nothing to reclaim waste land and most of it was not 'at his expense' but at that of the ryot. It was the *begar* or unpaid requisitioned services of the ryot on every occasion that did the work of reclamation, and if the landlord did spend a certain amount initially he was careful to recover it through one of the innumerable *abwabs* like *pulbandi* (charges for repairs of bridges or embankments) or *mofussil* charges. Thus clearance of jungle and drainage of swamps and marshes were mostly either on *begar* or forced labour which the ryot was compelled to render to keep his land, or the cost of it was recovered with interest by the Zemindar through *abwabs*. By 1885 most of the wastes in West Bengal had been reclaimed and the abolition of *abwabs* on paper no more struck the landlord hard. It should be mentioned that even after 1885 *abwabs* continued and the Great Rent case of 1865, while acknowledging the services of the landlords in this regard, expressed its anxiety to pull the reins on the landlord's right to levy *abwabs* on the supposed strength of his private right. The landlord certainly brought cultivators

from elsewhere and settled them at their own expense 'offering temporary exemption of rents' but this was almost always for the first few years, after which the screws were applied through rack-rents. A great example of this was the Santal rebellion of Birbhum in 1855. The Santal, the natural enemy of the jungle, is usually inducted by a Zemindar to reclaim a waste. He is usually exempted from rent for the first year or two, and thereafter assessed to a produce rent for the next few years. As soon as the land is reclaimed and its fertility restored by good husbandry, and the twelve-year period with the prospect of bestowing occupancy right on the tiller draws nigh, the landlord gets restive and tries various means of dispossession to extricate the land and settle it with more skilful tenants who are willing to pay handsome rents. Minor riots follow in which the Santal loses his case at the very start by breaking the peace. This has been the monotonous record of land reclamation in Midnapur, Bankura, Birbhum, Malda and West Dinajpur. In fact, anyone but a *jhum* cultivator, was bound to come to an unpleasant end if he insisted on settling on the land which he cleared. This was also the history of land reclamation in the Sundarbans and that area still remains a little troublesome. Finally it is difficult to appreciate R. K. Mookerji's endorsement of Thorold Rogers' thesis that the increase of population has not preceded but followed occupation of inferior lands and their cultivation. This hardly applies to a country without a standard of living which might have demanded that the prerequisites of a certain development must *precede* the development itself. It is not difficult to realise as has been hinted elsewhere in this Report, that the growth of population was the most important factor in causing an extension of cultivation. During 1800-1850, the rate of rent, or rather the amount of *hustabood* practially doubled; had this not happened the new Zemindars would have gone the way of the old rajas before the Permanent Settlement with revenue standing at 10/11ths of gross assets. This is supported by changes in the land revenue laws, beginning with the *Huptam Pancham* regulations and ending up with the Rent Act and the Great Rent Case. A study of the pattern of land utilisation would prove that extension of cultivation synchronised with periods of population growth: no mere coincidence. Moreover, after 1850, the Zemindars became more and more mere rent collectors and did little towards the improvement of agriculture or extension of cultivation. Thorold Rogers probably thought of what another great economist, Marshall, spoke of the English landlord, that the latter always performed an *economic* function inasmuch as he supplied agricultural capital at the lowest rate of interest possible. His Bengal counterpart did nothing of the sort, and yet even today every bit of land is being snapped up by land hungry tenants, no matter how submarginal and bereft of all improvement it may be.

24. Students of West Bengal's land revenue have not made it perfectly clear that Zemindars in the nineteenth century had their waste lands reclaimed almost *gratis*, that is, whatever capital they expended in settling reclaimers to start with they realised with interest either through dispossession of the reclaimers, or through enhanced rents and various *abwabs* connected with improvement and *baze jama*. This applies as much to reclamation of waste lands as to such improvements as irrigation tanks and canals, drainage channels, embankments, culverts, bridges and bazars. It is quite possible to agree with Thorold Rogers that the landlord helped in the extension of cultivation and growth of population in the nineteenth century, and with R. C. Dutt and R. Mookerji, that it was the Zemindars who undertook extension of cultivation, and yet maintain

that it was the peasant who paid for all this through the nose in the nineteenth century. The records of any collectorate of a West Bengal district, not to speak of the Bengal Records, will be enough to prove this fully.

25. As for the kind of part the Zemindars played in introducing special crops like indigo and tea, the Report of the Indigo Commission of 1860 details the means employed upon cultivators. Jute in Bengal is as ancient as its commerce and is not a new crop at all. Indigo existed before the Permanent Settlement and silk and sugar are mentioned in very ancient records. Both Abul-Fazl and Francis Bernier praised the quantity and quality of Bengal sugar, silk and cotton. It does not take long to prove that the Permanent Settlement had rather an inhibiting influence on the cultivation of special crops and forced the peasant to grow more and more food so that he could feed himself first and think of money afterwards. It is likely that some of these means, not always in a mild form, were employed in extending ordinary cultivation to wastes and jungles. The Fifth Report of 1812, the Bengal District Records, even R. K. Mookerji's treatise (pp. 216-230), bear eloquent testimony to the tyranny employed. Here are some of the methods, recounted by the Indigo Commission at pages 23 and 24 of their Report of 1860: (i) actual destruction of human life, (ii) fights between the adherents of Zemindar and planter which used to carry desolation, terror, and demoralisation into a dozen villages at a time, (iii) affrays carried out with premeditation, on a large scale, by means of hired clubmen, (iv) the burning of bazars and houses, (v) the knocking down of houses, (vi) outrages on women, (vii) kidnapping of men, carrying off of cattle, and rooting up of gardens and other offences and (viii) confining recusant or obstructive parties in the interior of the country.

26. These were the direct methods of forcing peasants to obedience. There was a more potent method which discarded all these barbarities and consisted in iniquitous rent in kind which kept the peasant in a state of semi-starvation and tied up in debt from which he found it hard to extricate himself. The effect of this device was far more serious and virtually prevented a growth of population. As will appear from an Appendix in Part IC of this Report, H. T. Colebrooke's note on *Husbandry in Bengal* (written in 1794), that so soon after the Permanent Settlement there was much subletting at rack-rent already, much agricultural indebtedness, small areas of land per head (Colebrooke calculated 'little more than 1 acre of tilled ground for every person') and uneconomic holdings. The evil effects of such systems as *barga* in Burdwan, *kishani* in Birbhum, *sanja* in Bankura and Midnapur, *khutkhamar* in Hooghly, *lotdari* in the Sundarbans, *utbandi* in Nadia, *faslijama* and *kishani* in Murshidabad, *hal hasila* in Malda and West Dinajpur, and *jhum* in Jalpaiguri on the state of agriculture in these districts and the growth of cultivation have already been discussed in the section on growth and movement of population in Chapter I, where it has been shown that wherever an iniquitous system of produce rent prevails neither has the population grown at a satisfactory rate, nor has agriculture prospered. All the above mentioned systems of produce rent were designed as baits to extension of cultivation, but, as has been noticed, the baits were so threadbare that while they merely helped to show more land under the plough they did not substantially add to agricultural wealth. Consequently the population did not thrive.

27. It is a matter of no little instruction that between 1790 and 1872 the population remained almost stationary and even declined. This is mentioned in Chapter I and for details the reader's attention is drawn to H. Beverley's

Report for 1872. In other words, the normal growth that might be expected for the province during eighty years (1790—1872) and again between 1872 and 1921 (during which period the increase was only 20·5 per cent. including immigration in 50 years) was sacrificed to extension of cultivation, iniquitous tenancies and sharecropping traditions, natural calamities, and preternatural decay of indigenous industry. The counter balancing factors of a foreign contact, a network of railways and roads, of improved public health and famine-fighting methods, of settled peace and stable administration were of little avail. The price of the Permanent Settlement in terms of human sacrifice was thus more considerable than a series of major wars or famines, so much so that in a hundred and thirty years the natural growth of population was only about 12 per cent. on the estimated population of 1794. That this aspect of the matter has been viewed from this point before will be borne out by the following observation, in the year 1927, of the Collector of Bankura on the Settlement Report of his district (see paragraph 74 in the section on Forests in the Introduction):

> The greatest change which has come over this district during the past half century has been the cutting down of the forests. In other districts, deforestation usually connotes increase in cultivation and a general rise in the economic condition of the people. In Bankura no such fortunate results have been obtained. Although everywhere increase in the land under cultivation is apparent the district is not supporting a larger population. In fact, the population in 1921 was 2 per cent. less than in 1881. Mr. Robertson has shown in his report what a serious evil the *sanja* or produce rent is to the welfare of the district. It keeps the cultivator under an ever increasing load of debt and prohibits any form of agricultural development. The serious dimensions already attained by this evil can be gauged from the fact that one-fourth of the settled raiyati land is held either on produce rent or on produce rent supplemented by a cash payment. Both of these kinds of rent are steadily increasing, and there can be no alternative but that either the cultivators must become slaves or they must rise in rebellion and destroy their oppressors (Settlement Report of Bankura, 1926).

28. The Settlement Officer of Midnapur has been quoted in paragraph 73 of the Introduction to this Report to show how indiscriminate extension of cultivation in that district by the destruction of forests actually led to a contraction of the cultivated area and very grievous soil erosion. The Settlement Officer listed other reasons for the deterioration of cultivation in Midnapur. A chief reason was the prevalence of *bhag* cultivation:

> Unfortunately the problem is not one that is likely to grow less: far from *bhag* rent showing any tendency to disappear in favour of money rent it seems to be on the increase. When a tenant of the latter class is sold up for arrears of rent it is a common practice for the purchaser to resettle the land with the defaulter on *bhag* rent; it is impossible to get exact data, but the general consensus of opinion seems to be that the practice is more common than it used to be. From an economic point of view *bhag* rent is hopelessly bad and is always associated with inferior cultivation. Indeed it is not impossible to pick out by the eye alone with tolerable accuracy those plots which are held on *bhag* rent so marked is the inferiority of the crop, and economic considerations might have been expected to restrict instead of enlarging the area of its prevalence. But such considerations do not operate to any extent with the class of petty *mahajans* who are the greatest devotees of the system and they prefer to have a tenant whom, relying on local opinion and in defiance of the intentions of Government, they can oust at any moment.
>
> As regards *abwabs* we have already seen that they are not a factor of any importance and having regard to the known state of affairs in this respect in other districts it is probably safe to infer that their absence is due to a knowledge on the part of the landlords that they cannot be realised without causing disturbances. But on the other hand there is an unmistakable tendency towards the replacement of money rents by produce rents; during the greater part of the nineteenth century the tendency was all the other way, produce rents, originally necessitated by primitive social and economic conditions in which money had small value and by the uncertainty of crops due to the lack of protective measures against floods, gradually gave place to money rents as security and physical betterment grew. The reversion to produce rents, which is a feature of quite recent years, indicates that competition for land is becoming severe, for no one would accept a tenancy on such a

rent, representing, as it does, twice or thrice the money rent for similar lands, were he not compelled to do so (*ibid*., p. 113).

29. Whereas in this passage the Settlement Officer virtually equated *bhag* cultivation with illegal *abwab* he forgot to mention that in the beginning of the nineteenth century *bhag*-cultivation prevailed so long as reclamation of jungle and waste was entrusted to primitive people, who were eventually ousted after the good work was done; the land was then let in rent, and as soon as money rent seemed less profitable than produce rent the proprietor swung over to *bhag*, the proprietor thus always trying for the best of both worlds and to be on top of the situation. This is the history of not one but all districts in the State to a greater or less extent, from which two conclusions stand out hard and clear: (*a*) although everywhere increase in the land under cultivation is apparent, the soil is not supporting a proportionately larger population, and (*b*) 'from an economic point of view, *bhag* rent is hopelessly bad, and is always associated with inferior cultivation'.

30. Between 1793 and 1832 a series of regulations was passed assuring protection to the ryot and between 1859 and 1885 another series of Acts. But behind every one of these enactments was either a serious famine or a tale of peasants rising in revolt and desperation. It would not be simplifying history to say that behind the great Bengal Tenancy Act of 1885 were the Report of the Famine Commission of 1881 and behind that again the agrarian movement of 1873, when the ryots in some areas combined in a kind of land league to resist landlords' exactions and defeated them by united opposition, leaving them no alternative but to bring suits against every tenant on their estates—a result which a contemporary official publication described as an agrarian revolution by due course of law. It is perhaps no accident that the population of Bengal began to register real if tardy growth only after 1885.

31. A brief account of other consequences of the Permanent Settlement may be quoted from L. S. S. O'Malley's General Survey in *Modern India and the West*.

> There have been changes in the composition of the landed classes. As already shown, first in Bengal and Bihar, and then in north west India, the greater part of the soil changed hands within a single generation as estates were sold up for arrears of revenue, and lands and villages passed into possession of land-jobbers, lawyers, traders, and capitalists, some of whom kept them in their own hands while others sold them at a profit (*ibid*., p. 715).

32. Land thus was reduced to a marketable commodity and became a matter of debt and credit. A rural land market rapidly grew up which exists to this day.

> Another change of no small sociological importance has been the progressive substitution of small for large estates owing to the break-up of joint families which has been a feature of Indian life since it came into contact with the West, and the working of the laws of inheritance quite independently of outside influences.
>
> Not only has there been fragmentation of estates, but there is also in many parts of the country a system of infeudation which has created a number of tenures intermediate between the Zemindars and the actual cultivators. In one Bengal district where subinfeudation is extreme, there are half a million subordinate tenures, each with permanent, transferable, and heritable rights, and a complex system is made still more complicated by the fact that superior holders often take under-tenures from their own tenants, and the same person may hold three or four classes of rights in the same bit of land.
>
> We may now turn to the tenants holding land under landlords. So long as population was comparatively sparse, there was a demand for cultivators to take up land and bring new cultivable land under the plough. As it increased there was competition for land among the cultivators themselves, which was accentuated to some extent by the decay of some indigenous handicrafts owing to the greater popularity of machine-made imports from the West, which threw handicraftsmen on the land. Further it was enhanced by the growing prosperity of some non-agricultural castes following despised callings, whose members used their savings to invest in land and took to the more honourable occupation of agriculture. Landlords took advantage of the general land hunger to demand

higher rents, to evict occupants who could not pay them, and to let their holdings to those who could and would. Competitive rents thus began to take the place of customary rents.

The tenantry have also been injuriously affected by the fragmentation of their holdings resulting from the break-up of joint families and the operation of the laws of inheritance, which incidentally prevents holdings from being compact blocks. If a man dies leaving four sons and four separate fields, they do not each take a field but a quarter of each field; holdings consequently often consist of small scattered plots of land. Conditions vary in different provinces and the average size of the holding is often considerable, but in congested areas many holdings are only sufficient to yield a bare subsistence or are so small as to be uneconomic. The Indian peasant is unfortunately dependent on the land alone, unlike his fellow in Japan or the old English peasantry, which obtained its living partly from tillage and partly from domestic industries, the incomes from the two sources being supplementary to one another. In some areas cultivators supplement the meagre income from their small holdings by occasional agricultural labour for others; but in only too many cases the land has to be given up and its occupants are submerged in the class which has the most toil and the least enjoyment of any—the landless and unskilled laboures; it was estimated by the Indian Franchise Committee in 1931 that 25 millions out of 31½ millions of agricultural labourers were landless. In 1928 the Royal Commission on Agriculture in India estimated the number of acres per cultivator as 12·2 in Bombay, 9·2 in the Punjab, 3·1 in Bengal, Bihar and Orissa, 3 in Assam and 2·5 in the United Provinces.

The changes in the systems of land tenures, the juridical rights given to different agrarian classes, the free market in land, and the diminution of the area of estates and holdings have been enough in themselves to transform the economic organisation of the rural areas in which the great majority of the people move and have their being. Other changes have been brought about by the play of economic forces due to increased contact with the West and the development of transport between India and Western countries as well as between different parts of India. A system which was largely mediaeval has been subjected to the modern influence of trade and money. The crops which are grown and the prices which agricultural produce commands are no longer determined by local needs, local gluts, and local scarcity, but are responsive to world requirements and are regulated by world prices. The peasant has more freedom of movement and a wider market for his crops and his labour, but on the other hand he has to face keener and more extensive competition, and he now has wants which it is not always easy to supply. The growth of population has moreover increased the pressure on the soil, and the pressure has not been appreciably relieved by agricultural improvements and a consequent increase of productive capacity. Another consequence has been a *morcellement* of holdings, which in many cases have been reduced below the subsistence level.

Another notable change has been the growth of a middle class. The formation of such a class appears to have attracted notice in 1829, when an editorial article in an Indian owned paper, the *Bengal Herald*, pointed out that, owing to the rise in the value of land, a class of society which was hitherto unknown, intermediate between the aristocracy and the poor, had sprung into existence and was daily growing in influence. Previous, it said, to its formation 'the wealth of the country was in the hands of a few individuals, while all others were dependent on them, and the bulk of the people were in a state of abject poverty, of mind and body. It is the dawn of a new era.' The creation of this class was ascribed to the increase in land values and the consequent increase of wealth acquired by owners of landed estates and urban property, but it also included members of different professions some of which were due entirely to the British connexion with India.

33. This 'dawn of a new era' which the Indian intelligentsia hailed as a renaissance had unfortunate effects on the village. The new middle class in the village largely grew on the cornering of occupancy tenancies, the village credit system, the proceeds of rack-rents and *abwabs*, and the employment of increasing numbers of sharecroppers and agricultural labourers, and not on better husbandry, agricultural improvement and better land management. On account of the tension and distance that the Permanent Settlement created through rack-rents, *abwabs* and creditor-debtor relationship, between the peasant proprietor and the actual tiller, cultivation and labour on the field, working with hands and feet in the sun and rain, came to be despised. The gulf between the actual tiller and the proprietor widened and developed into a relationship of exploited and exploiter and not of mutually contracting parties.

The proprietor came to be the arch enemy of the aspirations of the tiller, with a big stake in holding the latter down. Thus the rural middle class developed into a sworn enemy of the agrarian movement of share-croppers and agricultural labourers which set the exploiting town against the exploited village; and this also explains why the leaders of the Indian renaissance were sharply split in their sympathies towards agrarian unrest in the last century. Labour lost its dignity and a class of 'idle' rent-receivers, whom this census has classified as non-productive, increased. Thus started a steady flight from the village, a flight from the scene of oppression and tyranny which it was in the proprietors' interest to keep alive, to throw back the tide of which has but met with little success. A hundred and twentyfive years of idling has rendered this class relatively unadaptable to work in field or factory, softened their palms and trained them mainly to white collar work. The creation of this class, the direct beneficiary of the Permanent Settlement, was responsible for a strange blind spot in the eyes of students of Indian economics and history who hereafter deprecated the Permanent Settlement for much that was bad but persisted in their sneaking fondness for regarding it as responsible for a 'renaissance'. But they forget that a real 'renaissance' affects and improves many aspects of human life and must in the first instance be capable of being measured in terms of real improvement in agriculture and commodity production; that curiously enough the Permanent Settlement brought about a worsening in either direction. They were deluded into imagining this by the far worse conditions that prevailed elsewhere in India where there was no Permanent Settlement and where this middle class was longer in maturing.

34. The Permanent Settlement has penetrated West Bengal so thoroughly and shaped it so entirely that apology is hardly needed to dwell on it at length. Before the effects of the Settlement on the agricultural classes and village industry are summarised it will repay to quote from Resolution No. 1, dated 16 January 1902, of the Governor General of India-in-Council which is remarkable as a piece of *unconscious* self-criticism and condemnation of the Land Revenue system in Bengal. The occasion of this Resolution, published in the Gazette of India of 18 January of the same year, was a series of letters addressed to the Governor General by R. C. Dutt and a "memorial to the Secretary of State for India signed by certain retired officers of the Indian Civil Service", formulating a list of suggestions somewhat similar to R. C. Dutt's, themselves perhaps occasioned by the recurrence of a bad famine in 1897. After briefly describing the occasion of Regulation XIX of 1793 the Resolution proceeds as follows:

> At an earlier period the school of thought that is represented by the present critics of the Government of India, advocated the extension of the Permanent Settlement throughout India; and although this panacea is no longer proposed, the Government of India are invited by Mr. Dutt to believe that had such a policy been carried into effect 40 years ago, "India would have been spared those more dreadful and desolating famines which we have witnessed in recent years". It is also stated by the latter in his letter upon Land Settlements in Bengal that in consequence of the Permanent Settlement in that province the cultivators are more prosperous, more resourceful, and better able to help themselves in years of bad harvest, than cultivators in any other part of India, that agricultural enterprise has been fostered, cultivation extended, and private capital accumulated, which is devoted to useful industries, and to public works and institutions. The hypothetical forecast above recorded is not rendered more plausible to the Government of India by their complete inability to endorse the accompanying allegations of fact. Bengal, and particularly Eastern Bengal, possesses exceptional advantages in its fertility, in its comparative immunity from the viscissitudes of climate to which other parts of the country are liable, in its excellent means of communication, in its enjoyment of a practical monopoly of the production of jute, and in the general trade

and enterprise which radiate from its capital city. But neither these advantages nor the Permanent Settlement have availed to save Bengal from serious drought when the monsoon failure, from which it is ordinarily free, has spread to that part of India. Omitting to notice the frequent earlier famines, that known as the Behar famine of 1873-74 (so called from the part of the Bengal Province most seriously affected) cost the State £6 million; while it can be shown that in the famine of 1897 there were at the height of the distress considerably more than ¾ million persons on relief in the permanently settled districts of Bengal, and that the total cost of that famine to the Bengal administration was Rs. 10,804,000 or £720,266 (as compared with a famine expenditure of Rs. 9,828,000 or £655,200 in Madras, and Rs. 12,637,000 or £842,466 in Bombay), and this although the daily cost of relief for each person was less Re. ·081 in Bengal as compared with Re. ·104 in Madras and Re. ·106 in Bombay). If the figures of persons in receipt of relief in the permanently settled districts of Western Bengal were compared with those of the adjoining temporarily settled districts of the North Western Provinces where the conditions were closely similar, it would also be found that the percentage was more than half as high again in Behar as in the North Western Provinces. The Government of India indeed know of no ground whatever for the contention that Bengal has been saved from famine by the Permanent Settlement, a contention which appears to them to be disproved by history: and they are not therefore disposed to attach much value to predictions as to the benefits that might have ensued had a similar settlement been extended elsewhere.

As regards the condition of cultivators in Bengal, who are the tenants of the landowners instituted as a class in the last century by the British Government, there is still less ground for the contention that their position, owing to the Permanent Settlement, has been converted into one of exceptional comfort and prosperity. It is precisely because this was not the case, and because, so far from being generously treated by the Zemindars, the Bengal cultivator was rack-rented, impoverished, and oppressed, that the Government of India felt compelled to intervene on his behalf, and by the series of legislative measures that commenced with the Bengal Tenancy Act of 1859 and culminated in the Act of 1885, to place him in the position of greater security which he now enjoys. To confound this legislation with the Permanent Settlement, and to ascribe even in part to the latter the benefits which it had conspicuously failed to confer, and which would never have accrued but for the former, is strangely to misread history. As for the allegation that the Permanent Settlement has been the means of developing in Bengal an exceptional flow of public-spirited and charitable investment, while the Government of India are proud of the fact that there are many worthy and liberal minded landlords in Bengal—as there also are in other parts of India—they know that the evils of absenteeism, of management of estates by unsympathetic agents, of unhappy relations between landlord and tenant, and of the multiplication of tenure-holders, or middlemen, between the Zemindar and the cultivator in many and various degrees,—are at least as marked and as much on the increase there as elsewhere, and they cannot conscientiously endorse the proposition that, in the interests of the cultivator, that system of agrarian tenure should be held up as a public model, which is not supported by the experience of any civilised country, which is not justified by the single great experiment that has been made in India, and which was found in the latter case to place the tenant so unreservedly at the mercy of the landlord that the State has been compelled to employ for his protection a more stringent measure of legislation than has been found necessary in temporarily settled areas. It is not in fine in the Permanent Settlement of Bengal that the ryot has found his salvation; it has been in the laws which have been passed by the Supreme Government to check its license and to moderate its abuses (paras 5 and 6).

35. In this connexion the following acid comment in the Report of the Bengal Government to R. C. Dutt's recommendations is pertinent.

Mr. Dutt speaks of the distinguished loyalty of the Bengal Zemindars as a product of the Permanent Settlement. The Lieutenant Governor acknowledges with the heartiest pleasure the loyal sentiments to which Mr. Dutt refers, sentiments which he believes were absolutely genuine; but it is not Sir John Woodburn's experience that the Zemindars of the Upper Provinces are less loyal than their neighbours in Bengal. Mr. Dutt appeals to the munificent gifts of the Bengal Zemindars to all public purposes. The Lieutenant Governor again admits, gratefully, the princely generosity which has distinguished some of these gifts, but he cannot truthfully say that he has observed among the rank and file of the Zemindars a greater disposition to execute improvements on their properties, or to subscribe to local needs and local charities, than among the Zemindars of the Upper Provinces (letter from the Government of Bengal to the Government of India, No. 838 I.R. dated the 24th June 1901).

To return to the Governor General's resolution:

The general conclusion of the Government of India is that there is no reason for thinking that local taxation, if properly distributed, is on the whole either onerous or excessive, while as a general rule, it already falls short of the limit which the memorialists would propose to fix.

But there are grounds for suspecting that the distribution is often unfair, and that the landlords shift on to the tenants that share of the burden which is imposed by the law upon themselves (para 25). There are also, in some Zemindari tracts, a number of practically unauthorised village cesses, of which no mention has been made by the critics of the existing system, but which are well known to all those who are familiar with the economy of rural life in India. In many cases these unrecognised and often undesirable imposts exceed the total of the cesses levied under the British administration. Their imposition was prohibited by the Regulation of 1793, and ever since that date has been steadily discountenanced by the Government of India, as vexatious to the ryot and detrimental to the successful cultivation of the soil. Their complete suppression by the action of Government is not practicable in the present state of education among the agricultural classes. *But the subject is one to which the friends of the ryot might appropriately devote their concern, and in which their exertions might be of much use in supplementing the opposition of Government to a wholly illegitimate form of exaction* (para 26). *The Government of India will welcome from their critics, upon future occasions, a co-operation in these attempts to improve and to safeguard the position of the tenant which they have not hitherto as a rule been so fortunate as to receive* (the italics are mine.—A.M.).

The Governor General in Council has now reviewed the particular suggestions of Mr. Dutt and the memorialists. There remains to be noticed the underlying idea by which they have all alike been animated, and which, in some parts of the former's writings, has found definite expression. It is the theory that the amount of the land revenue taken by the Government of India, in one form or another, from the people is mainly responsible for famine, with its corollary that, were the assessments diminished, famine would be less frequent, or that, at least, when they do occur they would cause infinitely less suffering. The Governor General in Council does not believe that countenance to this theory can be derived either from the recorded facts of history, or from the circumstances of the present day. The evidence that has been adduced in this Resolution testifies to a progressive reduction of assessments, extending throughout the last century, and becoming more instead of less active during its second half. If then the severity of famine be proportionate to the weight of assessments, the famines in the earlier part of the 19th century ought to have been incomparably more serious than towards its close, whereas the contention is familiar that the reverse has been the case. Again, the contention that in recent famines the parts of India that suffered most severely were the parts that were most highly assessed, finds (with the exception of Gujarat, which had not been seriously famine-striken for a century, and was soft and unprepared) no support in fact, and was expressly disowned by the recent Famine Commission. It is conclusively disproved in the case of the Central Provinces by the evidence of the Chief Commissioner that, in the famine of 1899, the districts which felt the famine pressure most acutely were those which had been exempted from paying the revised assessments, introduced at the previous revision; while the districts that suffered most from the famine of 1896-97 were those in which there had been no enhancement for 40 years (para 27).

The fallacy in question is the result of an imperfect appreciation of the smallness of the land revenue compared with the enormous losses resulting from a widespread failure of crops. It has been estimated that in the Central Provinces the agricultural classes have lost 40 crores of rupees, or more than 26 million sterling, during the past seven years—an amount equivalent to the total land revenue of 50 years; while seven years' land revenue would be required to recoup the State for its famine expenditure in these provinces since the year 1896. Similar calculations could be made with regard to the other famine-smitten provinces. It is clear that no reduction of the land revenue demand, short of its total abolition and not even its abolition itself, could enable any community to hold up its head against a calamity so vast and so appalling (para 28).

An additional source of error lies in the conception, which is erroneous, that it is from the rent-paying or revenue-paying classes of the agricultural community that the sufferers in famine and the recipients of famine relief are principally drawn. An inspection of any relief works on a large scale, while it will show that the poorer sections of the tenant class are not unrepresented, will also demonstrate that the great majority are not ryots, but labourers on the land, whom the land revenue assessment practically in no way affects (para 30).

It is unnecessary, on the present occasion, to discuss what are the secondary causes of famine—for as to the primary (which the Governor-General attributes to drought—A. M.), there can be no dispute—and of the poverty and indebtedness which famine brings in its train. But it is manifest that anyone who shuts his eyes to the industrial and economic forces that are at work in India at the present time, and that are patent upon the surface of agrarian life, who does not take into account the ever-increasing subdivision of holdings (arising from the land hunger of the peasant population and the inveterate reluctance of the ryot to move even to the smallest distance from his natal place), the decline of industrial occupations other than agriculture, the rack-renting to which tenants are subjected by the more inconsiderate class of landlords and especially by middlemen of various degrees, the usurious rates of interest demanded by the moneylending class, the speculative expenditure upon litigation, the proneness to extravagance on festival occasions, and the numerous payments, in the form of petty bribes, among the ryots themselves, but who concentrates his entire gaze upon one aspect alone of their poverty, will carry away a most distorted impression both of the malady which he has set himself to diagnose and of the remedies which it is in the power or is the duty of Government to apply.

The above has been quoted at length to dispute some of its arguments however briefly. In the first place, it is necessary to point out that the tenancy legislations which the minute held up as a great act of benevolent rule came as an inevitable corollary to bolster up the Permanent Settlement, to keep it from crumbling away under its own economic unbalance. Thus the first object was to strengthen the Permanent Settlement and remotely to administer justice. Secondly, although these legislations were designed to protect the cultivator from rack-renting and ejectment, their real effect in practice resulted in safeguarding only the rural middle class and the jotedar *at the cost of not the landlord* but the tiller. The beneficiary has been the same middle class and the rich peasantry which emerged out of the ruin of the decadent landlords and founded themselves on a large and ever-widening grinding of sharecroppers and landless agricultural labourers. The wooing of this class became the historic necessity of the Government in the present as as well as the last century. Thirdly, it is necessary to point out in the spirited extracts the failure of the Government to acknowledge its responsibility for irrigation. It is interesting to quote a nineteenth century authority on this subject:

> There have been in Asia, generally from immemorial times, but three departments of Government, that of finance, or the plunder of the interior, that of war, or the plunder of the exterior; and finally the department of public works. Climate and territorial conditions, specially the vast tracts of desert extending from Sahara through Arabia, Persia, India and Tartary, to the most elevated Asiatic highlands, constituted artificial irrigation by canals and waterworks, the basis of Oriental agriculture. . . Now the British accepted from their predecessors the departments of finance and war, but they have neglected entirely that of public works. Hence the deterioration of agriculture. (See page 490 below.)

Fourthly, in its anxiety to absolve the Government of any responsibility for famines, the Resolution fights shy of an analysis of the Zemindari system, and the resulting industrial and commercial malaise that overtook the country in the last century like a creeping paralysis.

SECTION 2

AGRICULTURAL POPULATION RATIOS

Self-supporting persons and Dependants: Secondary Means of Livelihood of Agricultural Classes

36. The first two topics of this section have been discussed in the section on General Livelihood Pattern in Chapter I.

37. The proportion of each of the four agricultural classes to the population and the ratios they bear to one another can stand comparison with similar proportions and ratios for each census year backwards to 1901. Statement IV.1 in 3 parts shows for each agricultural class the comparable proportion it bears to total population between 1901 and 1951.

STATEMENT IV.1

Percentage of all agricultural self-supporting persons in L. C. I, and III to total population, 1901-51

(*a*) Percentage of all agricultural self-supporting persons to total population, 1901-51

State and District	1951	1931	1921	1911	1901
West Bengal	**14·9**	**18·5**	**23·4**	**23·4**	**19·8**
Burdwan	18·2	17·4	24·5	23·3	18·7
Birbhum	22·6	22·9	26·0	27·0	19·3
Bankura	21·7	28·4	29·6	30·5	23·8
Midnapur	22·1	22·4	26·8	30·0	25·4
Hooghly	16·5	22·2	23·3	22·0	16·7
Howrah	8·0	10·1	13·9	14·5	10·9
24-Parganas	13·0	17·9	20·8	21·8	20·3
Calcutta	0·24	0·97	1·6	1·1	0·9
Nadia	13·8	18·0	20·6	21·6	18·3
Murshidabad	16·5	18·7	31·0	22·1	17·2
Malda	15·1	19·2	26·4	24·8	26·2
West Dinajpur	20·9	22·7	32·1	31·4	30·2
Jalpaiguri	13·0	17·0	24·7	25·2	26·0
Darjeeling	7·2	11·1	23·1	19·4	22·5
Cooch Behar	22·4	23·4	30·4	30·2	22·6

centage of self-supporting persons in L. C. I (Cultivators of own land) to total population, 1901-51

State and District	1951	1931	1921	1911	1901
West Bengal	**7·5**	**8·2**	**16·2**	**16·3**	**17·0**
Burdwan	8·0	7·5	14·7	14·7	16·4
Birbhum	10·5	10·4	14·9	15·3	15·1
Bankura	11·6	9·2	17·6	17·2	19·1
Midnapur	12·4	12·8	18·4	21·6	21·5
Hooghly	7·5	7·6	13·9	12·7	14·0
Howrah	3·3	3·3	7·6	9·2	9·6
24-Parganas	6·3	7·6	15·3	16·5	18·1
Calcutta	0·1	0·1	0·4	0·3	0·3
Nadia	7·7	7·0	14·7	14·5	16·2
Murshidabad	9·1	8·0	20·9	14·6	14·6
Malda	8·1	8·7	17·8	19·3	19·3
West Dinajpur	11·3	11·5	26·5	25·9	27·1
Jalpaiguri	5·4	6·4	22·5	21·6	24·9
Darjeeling	4·3	4·1	22·2	18·1	22·2
Cooch Behar	12·4	14·7	29·1	28·8	21·6

STATEMENT IV.1—concld.

(c) Percentage of self-supporting persons in L. C. III (Agricultural Labourers) to total population, 1901-51

State and District	1951	1931	1921	1911	1901
West Bengal	**4·2**	**7·2**	**6·2**	**6·1**	**2·4**
Burdwan	6·6	7·0	8·8	7·2	2·0
Birbhum	8·7	11·1	11·5	11·0	4·0
Bankura	7·3	12·0	10·9	12·0	4·2
Midnapur	4·9	7·7	7·7	7·7	3·6
Hooghly	5·4	10·1	8·5	7·2	2·3
Howrah	3·3	4·7	4·9	4·1	1·0
24-Parganas	4·2	7·0	4·7	4·4	1·5
Calcutta	0·0	0·1	0·1	0·0	0·0
Nadia	3·7	7·2	4·3	6·1	1·5
Murshidabad	4·9	8·6	8·8	7·0	2·4
Malda	3·5	7·9	8·1	5·1	6·7
West Dinajpur	3·4	6·9	5·3	5·1	2·8
Jalpaiguri	0·5	5·2	1·6	2·4	0·3
Darjeeling	0·7	2·6	0·6	0·4	0·2
Cooch Behar	2·7	5·8	0·6	0·7	0·7

38. Statement (*a*) has been prepared by equating the total of self-supporting persons among rent-receivers, agents, managers of landed estates, rent collectors and clerks, cultivating owners (ordinary cultivators), tenant cultivators, agricultural labourers (farm servants and field labourers) of 1901-31 to the sum of self-supporting persons in the 4 livelihood classes of 1951; Statement (*b*) has been prepared by equating cultivating owners of 1931, 'ordinary cultivators' of 1921, and 'rentpayers' of 1911 and 1901 to Livelihood Class I of 1951. The effect of the law excluding '*bargadars*' (sharecroppers) in 1928 from the ranks of tenants can be immediately noticed in this statement. Up to 1921 Bargadars (or Livelihood Class II) were included in Livelihood Class I and admitted as such under the prevalent tenancy legislation. The figures of 1951 and 1931 closely agreeing on the one hand, and the figures of 1901 to 1921 forming a group on the other, it may be possible to abstract the proportion of bargadars in 1931 by subtracting the figures of 1931 from those of 1921 in Statement (*b*) as in the following statement:

STATEMENT IV.2

A rough estimate of the percentage of self-supporting persons among Bargadars (Livelihood Class II) in 1931

State and District	Estimated Percentage of self-supporting persons in Livelihood Class II to total population in 1921-31				Estimate of self-supporting bargadars in 1931
	1921		1931		
West Bengal	**16·2**	—	**8·2**	=	**8·0**
Burdwan	14·7	—	7·5	=	7·2
Birbhum	14·9	—	10·4	=	4·5
Bankura	17·6	—	9·2	=	8·4
Midnapur	18·4	—	12·8	=	5·6
Hooghly	13·9	—	7·6	=	6·3
Howrah	7·6	—	3·3	=	4·3
24-Parganas	15·3	—	7·6	=	7·7
Calcutta	0·4	—	0·1	=	0·3
Nadia	14·7	—	7·0	=	7·7
Murshidabad	20·9	—	8·0	=	12·9
Malda	17·8	—	8·7	=	9·1
West Dinajpur	26·5	—	11·5	=	15·0
Jalpaiguri	22·5	—	6·4	=	16·1
Darjeeling	22·2	—	4·1	=	18·1
Cooch Behar	29·1	—	14·7	=	14·4

39. This suggests a clue to the possible limit to which the percentage of 15·7 of Livelihood Class II to total population mentioned in Statement

I.137 (b) can be stretched with reference to previous and current data. But such a simplification is not warranted by facts and by the passage of time. The matter is far more complicated than a simple deduction.

40. The Planning Commission held an Agricultural Labour Inquiry between April 1950 and March 1951 throughout India. The inquiry was 'based on a sample survey'. The survey covered 115,000 rural families in India which was 'about 2 per cent. of the total number of rural families'. Although the short note received through the Registrar General does not describe how the samples were drawn it may be presumed that sufficient care was taken to make them random within each stratum. It has been remarked before that owing to overlaps of definitions of the four agricultural classes and the subjective element and prestige factor involved in any answer however objectively tendered, "it is only from carefully randomised samples conducted with particular care that reliable results may be expected".

41. It is however a matter of satisfaction to find a close correspondence between the proportion of agricultural classes to total rural population as revealed by the Indian Census and that revealed by the Agricultural Labour Inquiry. The following statement matches Statement I.137(b) of Chapter I with the proportions for rural population in West Bengal received from the Agricultural Labour Inquiry.

STATEMENT IV.3

Comparison between the Census figures and those of the Agricultural Labour Inquiry in respect of agricultural and non-agricultural rural population in West Bengal, 1951

Livelihood Classes	Percentage to total rural population	
	Indian Census	Agricultural Labour Inquiry
Agricultural Classes .	74·7	70·3
Non-agricultural Classes .	25·3	29·7

42. The difference is small and may be explained (a) by the smallness of the sample involving an error; (b) divergence due to the subjective element in the returns; (c) there is also a third possibility that a percentage of rural population engaged in trade or production other than agriculture returned themselves, on the strength of a piece of agricultural land which they might possess, as belonging to the agricultural classes when the census enumerator came round. Closer interrogation at the Agricultural Labour Inquiry might have been better able to differentiate borderline cases than during the census. In any case the closeness of the two figures is reassuring.

43. But correspondence between the proportions among each of the four agricultural classes as revealed by the Indian Census and the Agricultural Labour Inquiry is less satisfactory because of the different definitions adopted. A comparison of definitions forwarded by the Planning Commission has not been helpful, and the only recourse left is approximation, as in the statement below:

STATEMENT IV.4

Agricultural classes in the Indian Census and Agricultural Labour Inquiry in West Bengal, 1951

Description	Percentage to rural population
A. Livelihood Class III according to Indian Census (agricultural labourers without land) . .	16·0
B. Agricultural workers in the Agricultural Labour Inquiry .	18·0
C. Livelihood Classes I (42·4) and II (15·7) according to the Indian Census	58·1
D. Cultivators [owners (6·7) and tenants (39·0) and agricultural workers with land (6·0)] in the Agricultural Labour Inquiry .	51·7
E. Livelihood Class IV according to the Indian Census . . .	0·6
F. Livelihood Class IV according to the Agricultural Labour Inquiry	0·6

44. While the ratios in Livelihood Class IV are identical in both surveys, the figures of Livelihood Class III and those of Livelihood Classes I and II taken together in the Indian Census differ from those in the Agricultural Labour Inquiry. It is possible from what has been explained in the section on Livelihood Pattern in Chapter I (paragraphs 416 and 424) that Livelihood Class III is understated in the Indian Census, because the enumerator was instructed to rest content with the tendered answer of a citizen. The Agricultural Labour Inquiry divided census Livelihood Class III into two sections: (i) agricultural labourers without land, the percentage of which to total rural population happened to be 18, and (ii) agricultural labourers with land, the percentage of which to total rural population happened to be 6. The West Bengal Government's Inquiry into the Condition of Agricultural Labourers conducted in 1946-47 as well as Subsidiary Tables IV.2-4 printed in Part IC of this Report suggests that agricultural labourers with a piece of land to call their own, but whose principal means of livelihood is earning wages in other people's farms, may be quite considerable and as much as 6 per cent. of the total rural population as suggested by the Agricultural Labour Survey of the Government of India. A figure very near to this is borne out by the survey of the West Bengal Government as will be presently seen in Section 3 below. This extra 6 to 8 per cent. should in the logic of classification come under Agricultural Labour (Livelihood Class III) and ought to be deducted from the percentage of Livelihood Class I for West Bengal (42·4) standing for cultivators of land owned. Thus it seems that the Indian Census percentage of 16 of the agricultural population who have no land to call their own may have been very near the mark. But inasmuch as Livelihood Class III in the Indian Census represents agricultural landless labour as the principal means of livelihood and not the only or sum of all means of livelihood and ought to include those agricultural labourers who have a little land, it is possible that there has been a prestige concealment to a certain extent, a definite limit of 6 to 8 per cent. to which seems to be set by the West Bengal and Government of India inquiries. A comparison of the percentages of agricultural sharecroppers as revealed by the Indian Census and the Agricultural Labour Inquiry is ruled out by the very different definitions adopted on the two occasions but a higher percentage for Livelihood Class II than what is revealed by the last census is not unlikely in view of the figures of previous surveys discussed in Section 3 below. There is, however, no scope here for a guess. The West Bengal Government set a question 13 in the Census Questionnaire asking information on the amount of land owned by persons who cultivated their own land as also information on how much of it was let in sharecropping, but did not seek information on the actual number of sharecropping self-supporting persons in the State. No valid deductions bearing on this issue are therefore possible from that survey either. The Agricultural Labour Inquiry arrived at the high percentage of 28·2 for India as a whole for Livelihood Class II which, again, may have been due to the "very different" definitions adapted, but on all showing it seems that 15·7 per cent. of the total rural population for Livelihood Class II is an understatement, but by how much it is not possible with any amount of certitude to say. Correspondingly 42·4 per cent. in Livelihood Class I seems too high and by adjustment with Livelihood Class III alone should stand reduced to 36. With reference to adjustments in Livelihood Class II it will perhaps stand still further reduced. The issue is almost always clouded by the returns of sharecroppers having a little land of their own claiming to be in Livelihood Class I. The recent Agricultural

Labour Inquiry, a report of which has just been published, puts the figure of tenants at 23·1 per cent. and that of owners at 26·5 and those of agricultural workers with or without land at 28·1 for India as a whole. But the definitions of tenants and owners do not conform wholly to the census definitions of Livelihood Classes II and I. An earlier investigation in 1939 by the Land Revenue Commission in Bengal (Vol. II, page 117) is reproduced below. This will show that while the percentage of population living mainly or entirely on agricultural wages is much higher than the 1951 census figure, the percentage of population living mainly or entirely as bargadars is nearer the census figure of 1951. Districts 24-Parganas, Nadia, Malda, Dinajpur and Jalpaiguri have been considered for their prepartition areas.

STATEMENT IV.5

Distribution of families living as bargadars and agricultural labourers in 1939-40

State and District	Number of families inquired into	Living mainly or entirely as bargadars		Living mainly or entirely on agricultural wages	
		Number	Percentage	Number	Percentage
West Bengal	**9,305**	**1,235**	**13·3**	**2,672**	**28·7**
Burdwan	803	219	27·3	322	40·1
Birbhum	727	94	12·9	288	39·6
Bankura	670	44	6·6	165	24·6
Midnapur	1,110	73	6·6	277	25·0
Hooghly	595	165	27·7	145	24·4
Howrah	336	91	27·1	105	31·2
24-Parganas	1,174	22	1·9	204	17·4
Nadia	830	56	6·7	300	36·1
Murshidabad	1,178	128	10·9	482	40·9
Malda	332	62	18·7	132	39·8
Dinajpur	1,020	141	13·8	230	22·5
Jalpaiguri	530	140	26·4	22	4·2

(SOURCE: Report of the Land Revenue Commission, Bengal, 1940, Vol. II, page 117)

45. As the figures were "compiled from inquiries made by Kanungos, especially employed for the purpose, in typical villages in each district" as the Note to the Statement in the Commission's Report explains, that is, by a body of expert investigators well versed in land-tenure systems, the figures for Bankura, Midnapur, Nadia and Murshidabad seem to suggest that in the first two districts *Sanja* rent which is usually a fixed-produce or fixed-produce-*cum*-cash-rent, and in the second two districts *Utbandi* and *faslijama* which are usually a fixed-produce-rent were excluded from the definition of bargadars or sharecroppers whose rent or share of the crop varies with the crop harvested. This may explain the low proportions of bargadars in these districts.

46. It is quite likely that a percentage of 13·3 among the rural population of the districts of West Bengal in 1939-40 may have risen to 15·7 in 1951 on account of the intensification of the pressure on the soil, the impoverishment owing to the famine of small owner-cultivators some of whom were forced to sell their lands in order that they might live. *Prima facie*, therefore, there does not seem to be anything seriously wrong with the percentage of Livelihood Class II (sharecroppers) as thrown up by the Census of 1951. On the other hand the Land Revenue Commission's finding of 28·7 per cent. as living "entirely as agricultural labourers" (*ibid.*, p. 117, Note) seems to correspond with the recent Agricultural Labour Survey's finding of 24 per cent. for West Bengal. The actual and

estimated percentages of populations supported under each of the four agricultural livelihood classes among the rural population may be expressed as follows:

STATEMENT IV.6

Actual and estimated percentages of population in each agricultural livelihood class in West Bengal, 1951

	Livelihood Class I		Livelihood Class II		Livelihood Class III		Livelihood Class IV	
	Actual	Estimate	Actual	Estimate	Actual	Estimate	Actual	Estimate
West Bengal . .	42·4	34·4	15·7	15·7	16·0	24·0	0·6	0·6

47. This makes the sum of Livelihood Classes II and III to be 39·7 as against 34·4 in Livelihood Class I.

48. That the ratios of self-supporting persons, non-earning dependants and earning dependants among the agricultural classes in West Bengal and elsewhere might have been largely a matter of subjective approach has already been discussed in paragraphs 390 and 403 of Chapter I. A comparison with the figures of several other states will substantiate this point. This, however, assumes that the pattern of employment among agricultural populations all over India is pretty uniform. There are very few authoritative opinions to show that it is otherwise. But there is one point not mentioned before which is worth mentioning here, which is the acute state of subdivision of agricultural holdings in this State as a result of which more persons are relegated by definition to the position of non-earning dependants, instead of earning ones in West Bengal. Another possible reason (although this is no more than a guess because no authoritative survey exists of the disintegration of the joint-family system in different states in India) may be a more rapid disintegration of the joint-family in West Bengal than elsewhere, thus enabling a numerically stronger mass of people to be classed as non-earning in this State, who elsewhere has been perhaps classed as earning dependants. The following statement in four parts makes a comparison of self-supporting persons, earning and non-earning dependants in each of the four agricultural classes in several states of India.

STATEMENT IV.7

Percentage of self-supporting persons, earning and non-earning dependants among the agricultural classes in several states, 1951

(a) Livelihood Class I

States	Percentage of total population	Percentage of column 2 who were self-supporting persons, non-earning dependants and earning dependants		
		Self-supporting	Non-earning dependants	Earning dependants
1	2	3	4	
West Bengal	33·34	23·32	72·97	3·71
Bombay	40·74	23·18	55·89	20·93
Orissa	59·53	26·79	63·82	9·39
Madhya Bharat	50·43	30·43	58·35	11·22
Vindhya Pradesh	62·62	29·50	55·87	14·63
Uttar Pradesh	62·27	28·85	57·03	14·12
Madras	35·00	24·00	71·00	5·00
Mysore	55·46	23·79	73·13	3·08

STATEMENT IV.7—concld.

(b) Livelihood Class II

States	Percentage of total population	Percentage of column 2 who were self-supporting persons, non-earning dependants and earning dependants		
		Self-supporting	Non-earning dependants	Earning dependants
1	2	3	4	5
West Bengal	12·01	25·09	69·88	5·03
Bombay	9·69	24·01	53·34	22·65
Orissa	5·94	26·60	61·79	11·61
Madhya Bharat	10·21	29·18	60·90	9·92
Vindhya Pradesh	6·36	34·88	49·34	15·78
Uttar Pradesh	5·15	30·44	52·63	16·93
Madras	10·00	23·00	72·00	5·00
Mysore	4·76	25·57	69·70	4·73

(c) Livelihood Class III

States	Percentage of total population	Self-supporting	Non-earning dependants	Earning dependants
West Bengal	12·26	34·07	61·27	4·66
Bombay	9·05	31·05	47·89	21·06
Orissa	12·31	32·77	55·12	12·11
Madhya Bharat	10·67	41·08	46·59	12·33
Vindya Pradesh	17·62	35·22	46·59	18·19
Uttar Pradesh	5·71	36·61	49·12	14·27
Madras	18·00	30·00	63·00	7·00
Mysore	6·79	35·75	60·95	3·30

(d) Livelihood Class IV

States	Percentage of total population	Self-supporting	Non-earning dependants	Earning dependants
West Bengal	0·60	26·10	71·56	2·34
Bombay	1·98	27·68	64·04	8·28
Orissa	1·50	30·26	64·27	5·47
Madhya Bharat	0·90	34·35	56·54	9·11
Vindhya Pradesh	0·53	38·50	51·28	10·22
Uttar Pradesh	1·06	38·05	58·53	3·42
Madras	2·00	29·00	68·00	3·00
Mysore	2·89	29·28	67·76	2·96

49. West Bengal's proportions of self-supporting persons, earning and non-earning dependants seem to agree very curiously only with those of Mysore. The two states have almost the same areas.

50. The above statement shows wide differences in the percentage distribution of each agricultural class in the total population in different states. This is no doubt partly due to differences in the objective conditions prevailing in them. It may also be due to the different constructions put on the definitions of the agricultural classes in the light of land and tenancy laws prevailing in each state. But it is difficult to account for the wide differences in the percentages of self-supporting persons and earning and non-earning dependants except by admitting the possibility of a large subjective element depending "on how patriarchal the head of the family felt about the subject".

51. The variations in self-supporting persons, earning and non-earning dependants in the four agricultural classes from district to district within West Bengal itself are so distinct that several conclusions are possible. The following is an abstract of Subsidiary Tables IV.2-5.

STATEMENT IV.8

Number per 1,000 of each agricultural class who are self-supporting persons, earning or non-earning dependants in West Bengal, 1951

State and District	Livelihood Class I (i) Self-supporting persons	Livelihood Class I (ii) Non-earning dependants	Livelihood Class I (iii) Earning dependants	Livelihood Class II (i) Self-supporting persons	Livelihood Class II (ii) Non-earning dependants	Livelihood Class II (iii) Earning dependants	Livelihood Class III (i) Self-supporting persons	Livelihood Class III (ii) Non-earning dependants	Livelihood Class III (iii) Earning dependants	Livelihood Class IV (i) Self-supporting persons	Livelihood Class IV (ii) Non-earning dependants	Livelihood Class IV (iii) Earning dependants
West Bengal	**233**	**730**	**37**	**251**	**699**	**50**	**340**	**613**	**47**	**261**	**716**	**23**
Burdwan Division	*240*	*716*	*44*	*261*	*672*	*67*	*370*	*570*	*60*	*276*	*701*	*23*
Burdwan	255	711	34	228	708	64	419	515	66	312	668	20
Birbhum	243	718	39	257	675	68	335	605	60	262	719	19
Bankura	224	720	56	264	645	91	372	530	98	307	669	24
Midnapur	242	708	50	280	653	67	364	582	54	279	695	26
Hooghly	235	732	33	276	655	69	393	559	48	245	725	30
Howrah	222	751	27	236	735	29	316	664	20	223	766	11
Presidency Division	*225*	*745*	*30*	*242*	*723*	*35*	*302*	*668*	*30*	*247*	*729*	*24*
24-Parganas	223	745	32	238	727	35	288	683	29	249	732	19
Calcutta	332	651	17	418	573	9	586	404	10	243	743	14
Nadia	241	719	40	227	746	27	334	639	27	265	699	36
Murshidabad	219	752	29	225	730	45	300	668	32	216	738	46
Malda	191	781	28	207	753	40	289	680	31	238	722	40
West Dinajpur	236	733	31	229	721	50	325	630	45	323	655	22
Jalpaiguri	260	717	23	269	696	35	399	585	16	243	730	27
Darjeeling	202	757	41	248	713	39	401	550	49	192	798	10
Cooch Behar	246	743	11	284	706	10	382	612	6	239	752	9

52. The first conclusion that may be reasonably drawn is that whatever may have been the differences with other states, the definitions of self-supporting, non-earning and earning dependants in all districts within the State were more or less uniformly understood and subjected to almost a uniform proportion of error or bias in application. Regional differences of ratios of earning dependants are observable in different kinds of agricultural soil where different methods of cultivation obtain in distinguishable zones. For instance, it is rather interesting that the ratio of earning dependants should be fairly even within any particular agricultural class in (i) Burdwan and Birbhum, (ii) Bankura and Midnapur, (iii) Hooghly and Howrah, (iv) Murshidabad, Malda and West Dinajpur and (v) Cooch Behar. Each of these five groups of districts represents more or less a particular kind of soil, a distinctly regional method of land management and cultivation and distinct traditions of produce-rent cultivation. This rudely outlines what can be a most interesting study of sociological differences in the method of land management and employment on the land in the five regions—matter, in fact, for much interesting human geography—as well as, possibly of bias on the part of the respondent in statistical investigation. But from what has been described of these separate regions in the Introduction and Chapter I they seem to indicate substantial differences in human geography between region and region and much homogeneity within each region. It may be pertinent to speculate whether if Bankura and Midnapur of the red soil and clay zones were separately compared they might not yield closer results, and whether if it were possible to separate similar geographical regions in Burdwan and Birbhum to compare like with like, closer figures might not again be obtained.

53. Secondly, it is interesting how the proportions of both self-supporting

persons and earning dependants rise steeply from Livelihood Class I to Livelihood Class II. It is also interesting how the proportion of self-supporting persons rises steeply again from Livelihood Class II to Livelihood Class III, while the proportion of earning dependants registers a dip from the former to the latter. This gives an insight into the respective compositions of tenant, sharecropping and landless agricultural labourers' families. In the first type of family the burden falls heavily on the tenant-owner (the result being a high proportion of non-earning dependants) who is comparatively well off and therefore can send out his sons to try their fortunes on their own, resting content to employ hired labour. He is also more 'patriarchal' and jealous of his property than the sharecropper or landless labourer's family and therefore loth to acknowledge any of his sons as an earning dependant. In a sharecropper's family the burden of livelihood is a little more evenly distributed. The proportions of self-supporting persons and earning dependants both rise, lowering the proportion of non-earning dependants. There is greater employment of man-power in this type of family which indicates that as soon as a person attains working age in this class he is more readily available to work in the field with the head of the family either on his own land or another's. The number of earning units is therefore greater in this class than in Class I. The proportion of self-supporting persons rises still more steeply in a landless agriculturist's family from Livelihood Class II, while the proportions of earning and non-earning dependants fall correspondingly. This means that either because the standard of living is low or because the supply of agricultural labour is short, more people may be classified as self-supporting persons than otherwise in this livelihood class. There is also the reason that other factors like education being less than in other categories more persons are driven to earning for themselves early in life. The proportions of self-supporting persons and earning dependants steeply decline in Livelihood Class IV. The proportion of earning dependants is the lowest in this class, which conforms to common experience in the village. The son of a Zemindar has seldom occasion to try his hand at supplementing the family income by working on his own. Such a thing is actually below his station in life. The proportion of self-supporting persons in Class IV is, on the other hand, higher than in Class I on account of the far greater readiness among proprietary rent-receiving interests to divide according to shares, either owing to impecuniosity or family differences or the traditional tendency of subinfeudation than among cultivating tenants in Livelihood Class I who are probably more anxious to cling to economic holdings and defer the evil day of subdivision.

54. The third conclusion that may be drawn is that in the case of Livelihood Classes II and III also, regional tendencies are noticeable which on closer investigation may serve the interests of human geography: (i) Burdwan seems to be alone in its peculiar distribution of a comparatively low ratio among self-supporting persons in Livelihood Class II and a high ratio in Livelihood Class III reflecting, what has already been noticed in the section on Livelihood Pattern in Chapter I, the depressing effect of the canal regions and their irrigation facilities on the enterprise of land-owning tenants as a consequence of which as soon as land improves in fertility with irrigation it is let out to *bargadars* and more often to a particular class of agricultural labourers called *kishans* who receive their wages in kind. (ii) Birbhum, Bankura, Midnapur and Hooghly seem to form a second zone by the comparatively homogeneous patterns of self-supporting persons, earning and non-earning dependants among sharecroppers

and landless agricultural labourers and there are, as already noted, striking similarities of land management and land use in these districts taken together. The composition of society in the rural areas is very much alike also. (iii) Howrah and 24-Parganas might show closer ratios if the Sundarbans areas and Bangaon subdivisions were excluded. (iv) The fourth zone comprising Nadia, Murshidabad, Malda and West Dinajpur enjoys striking similarities in the composition of Livelihood Classes II and III: Nadia shows a peak in the proportion of self-supporting persons in Livelihood Class III (landless agricultural labour) explainable in part by the prevalence of the *utbandi* system, while the ratio of West Dinajpur in this class is comparatively high on account of the presence of Santal, Polia and Rajbansi agricultural labourers. (v) Jalpaiguri and Cooch Behar again present a homogeneous pattern in the livelihood classes. These zonal distribution patterns of self-supporting, earning and non-earning dependants cannot be wholly fortuitous especially when one considers the geology of these districts, the composition and distribution of soil, the arrangement of rivers, the irrigation systems, and the patterns of land use and employment which also seem to fall into distinct types in these zones. The general laws of ecology seem to assert themselves in spite of subjective considerations. The colourless and uniform pattern of Livelihood Class IV, the consequence of a uniform Permanent Settlement on the State, is also well brought out in this statement.

55. This brings us to the question of secondary means of livelihood of the agricultural population. Subsidiary Tables IV.2-5 render an account of secondary means of livelihood of each agricultural class. It is unnecessary to explain these tables in detail but it will suffice here to note the striking meagreness of a secondary means of livelihood among self-supporting persons. Several conclusions drawn before in this connexion may now be summarised: (*a*) There has been a rapid and universal decay in small rural cottage industries as a result of which avenues of subsidiary employment of the rural population have narrowed considerably and even wound up; (*b*) some amount of interchangeability among the four agricultural livelihoods still exists making possible a series of permutations and combinations of the four agricultural livelihoods; (*c*) contrary to an almost universal popular opinion that small scale cottage industries are manned and run by a large section of peasants working in their idle spare time, almost all cottage industries requiring the slightest amount of specialised skill are run by persons whose primary business is *not* agriculture but that particular, specialised craft; and (*d*) as a result of the decay of rural industries more and more handicraftsmen are now thrown on the land, that is, a larger section of the rural population ostensibly engaged in Production other than Cultivation, Commerce, Transport and Other Services and Miscellaneous Sources have some kind of cultivation as a second string for which they would perhaps not care formerly.

56. It is necessary to substantiate these conclusions. The first one has been confirmed in previous chapters. A substantial confirmation of it will be available if we take away (i) stock-raising, (ii) rearing of small animals and insects, and (iii) forestry and wood-cutting from Livelihood Class V (production other than agriculture) and, according to the practice of past censuses, show the persons who follow those livings as belonging to the agricultural classes. This reduces still further the proportion among agricultural classes following a secondary livelihood in non-agricultural pursuits. The following statement abstracted from Subsidiary Tables IV.2-5 shows the position for Livelihood Classes I, II, III

and IV for five principal agricultural districts in West Bengal: Birbhum, Bankura, Midnapur, Malda and Cooch Behar:

STATEMENT IV. 9

Non-agricultural secondary means of livelihood for four agricultural classes, 1951

State and District	Number of self-supporting persons per 10,000 of all agricultural classes	Number of self-supporting persons per 10,000 of self-supporting persons in all the agricultural classes whose secondary means of livelihood is				
		Total	Production other than cultivation	Commerce	Transport	Other services and miscellaneous sources
West Bengal	**2,603**	**1,110**	**356**	**338**	**46**	**370**
Burdwan Division	*2,743*	*1,278*	*441*	*349*	*55*	*433*
Birbhum	2,775	1,166	386	302	32	446
Bankura	2,649	1,338	530	361	36	411
Midnapur	2,702	1,509	545	378	64	522
Malda	2,122	958	372	297	50	239
Cooch Behar	2,687	540	121	214	13	192

57. The very low proportion of employment of self-supporting persons in a subsidiary living in Production other than Cultivation, which refers to all industries, is noteworthy. This low proportion would be reduced still further if, as observed above, stock-raising, rearing of small animals and insects, forestry and woodcutting were taken away from Livelihood Class V, as they are really allied to the business of day to day agriculture rather than separate industries in themselves. The deterioration in secondary employment especially in industries and other services of the population engaged in agriculture will be more evident if we compare the above statement with that of 1921 below which has been prepared from Table XVIII of 1921.

STATEMENT IV. 10

Number per 10,000 of self-supporting persons in agricultural classes who had non-agricultural secondary means of occupation in 1921

Secondary Means of occupation	Burdwan Division	Birbhum	Bankura	Midnapur	Malda	Cooch Behar
Number per 10,000 of Agricultural classes whose self-supporting persons had a secondary means of occupation	690	948	658	640	990	496
Money-lenders and Grain dealers	35	38	33	36	59	23
Traders in jute	4	6	2	2	1	12
Other traders	67	95	59	68	295	121
Medical practitioners	10	13	9	9	10	17
Cotton weavers	26	63	61	22	10	9
Silk worm and tusser weavers	2	9	1	1	12	..
Jute weavers	3	6	..	1	..	..
Other occupations	428	561	397	429	452	256
Cattle breeders and milkmen	21	23	8	8	96	4
Coal miners	8	..	18	..	..	..
Potters	18	35	19	15	2	5
Leather workers	5	8	3	3	3	8
Factory iron workers	3	1	2	1	..	1
Other iron workers	8	21	10	5	5	4
Carpenters	7	21	4	4	20	7
Oil pressers	10	18	20	7	12	29
Employees of inland Steamers, etc.	4	..	2	3	..	..
General labourers	31	30	10	26	13	..

58. That this remarkable deterioration in secondary non-agricultural employments in industry and other services is progressive over the last few decades and is taking place at an almost furious pace, will be more evident from the following statement prepared from Table XVB(I) for 1911.

STATEMENT IV. 11

Number per 10,000 of self-supporting persons in agricultural classes who had non-agricultural secondary means of occupation in 1911

Secondary Means of occupation	Burdwan Division	Birbhum	Bankura	Midnapur	Malda	Cooch Bel
Number per 10,000 of agricultural classes whose self-supporting persons had a secondary means of occupation	1,063	1,143	993	1,209	1,204	587
General labourers . . .	93	71	153	98	254	33
Government servants of all kinds.	5	5	8	4	3	5
Money-lenders and Grain dealers.	58	36	55	83	67	33
Other traders of all kinds . .	222	253	166	256	325	174
Priests	10	1	11	11	..	2
Clerks of all kinds (Non-Government)	2	..	1	1	..	1
Lawyers	..	..	1	..	..	..
Estate agents and managers .	1	..	1	1	1	1
Medical Practitioners . .	2	1	3	2	..	2
Artisans	1	1	1	..	..	1
Fishermen and boatmen . .	70	79	47	79	30	28
Cattle breeders and milkmen .	43	57	65	18	109	3
Village watchmen . . .	23	23	18	28	11	53
Weavers	41	61	37	59	21	6
Barbers	31	32	30	43	8	9
Oil pressers	15	32	23	14	12	33
Potters	20	31	21	23	2	8
Washermen	18	3	8	38	3	..
Blacksmiths and Carpenters .	27	49	28	27	19	16
Mill hands	..	..	1	..	..	..
Rice pounders	9	9	21	4	2	..
Leather workers . . .	2	7	1	..	..	..
Other occupations . . .	370	392	293	420	337	179

59. As to the second conclusion that some amount of interchangeability among the four agricultural classes still exists, it is too obvious from the Subsidiary Tables in Part IC of this Report to require elaboration. This interchangeability also indicates a tension among owner-tenants, sharecroppers, landless labourers and rent-receivers, a tale of progressive pauperisation, a rigidity and unadaptability to changing circumstances, where the agricultural population mills round the soil as in a pound. As for the third conclusion that contrary to popular opinion the cottage industries are not run as secondary livelihoods by agriculturists in their spare time, nothing is more instructive than the three statements above, where the low figures of secondary employment of agriculturists in the traditional cottage crafts are remarkable. They are also borne out by the tenets of the caste system which require of a man to stick to his caste profession and not go beyond it, and also the rigidity and unadaptability of peasants. Up to 1931 tables used to be prepared showing how many persons leave their caste occupations for other employments : they used

to be interesting as proof not only of the breaking down of occupational rigidity in the caste system but also of the rapid decay of indigenous industries. It is obvious that while the decay of indigeneous industries has progressively driven more and more people from their traditional occupations to other professions and agriculture there has not been a considerable trend in the reverse direction of agriculturists trying to crowd craftsmen, artisans and men engaged in cottage industries out of their professions.

60. As for the fourth conclusion that as a result of the decay of rural industries more and more handicraftsmen are now being thrown upon the soil, nothing can be more instructive of the tremendous pace at which this has been happening than the following statements for 1921 and 1951. The year 1921 probably represents a period when already the decline of cottage industries was more or less afoot, but 1951 represents the stark and pitiless struggle by other non-agricultural occupations to dispute a livelihood on land, especially to acquire the most valuable of all rights on land—the occupancy right of a tenant. For as soon as a tenancy-right is acquired on the land-market it can be turned over to sharecropping which represents an assured big interest on a small investment, while the acquirer is left free to pursue his principal livelihood elsewhere. Thus in addition to absenteeism among rent-receivers, zemindars and landlords, a new and agriculturally far more alarming tendency has grown with the decay of rural economy, that of absenteeism among occupancy ryots and owner-cultivators, causing a greater flight from the village and the birth of what is known as the lower middle classes in the town, who are neither good substantial husbandmen nor good at the professions but do inestimable damage to agriculture by deserting their land and leaving it to the tender mercies of the sharecropper and hired agricultural labourer. It is this class which has accelerated the space of urbanisation in residential towns and increased submarginal living in them and brought about a rapid deterioration in agricultural production in spite of an appreciable increase in the area of cultivation.

STATEMENT IV.12

Secondary means of livelihood in agriculture for the four non-agricultural classes, 1951

State and District	Number of self-supporting persons per 10,000 of all Non-agricultural classes	Number of self-supporting persons per 10,000 of self-supporting persons in all the non-agricultural classes whose secondary means of Livelihood is				
		Total	Owner cultivation I	Share-cropping II	Agri cultural labour III	Rent Receiving IV
West Bengal	**3,883**	**452**	**341**	**50**	**42**	**19**
Burdwan Division	*3,861*	*831*	*631*	*87*	*79*	*34*
Birbhum	3,965	976	807	67	86	16
Bankura	3,555	1,611	1,184	141	217	69
Midnapur	3,437	1,547	1,088	203	225	31
Malda	2,862	1,163	876	106	161	20
Cooch Behar	3,710	208	150	26	12	20

COMPARISON BETWEEN 1951 AND 1921

STATEMENT IV.13

Secondary means of occupation in agriculture for non-agricultural classes in 1921

District	Number of self-supporting persons per 10,000 of all Non-agricultural classes	Number of self-supporting persons per 10,000 of self-supporting persons in all the non-agricultural classes whose secondary means of occupation was			
		Total	Rent payers Livelihood Classes I & II	Agricultural labourers Livelihood Class III	Rent receivers Livelihood Class IV
Burdwan Division	*5,393*	*60*	*39*	*16*	*5*
Birbhum	6,463	54	45	7	2
Bankura	5,451	95	58	22	15
Midnapur	5,179	95	70	20	5
Malda	5,346	24	16	7	1
Cooch Behar	6,186	11	8	2	1

61. The statement for 1951 has been prepared by combining all the four non-agricultural classes while that for 1921 has been prepared for (i) cotton weavers, (ii) silk and tussar weavers, (iii) factory iron workers and (iv) brick and tile makers, and for (v) tea garden coolies (vi) coal miners (vii) jute weavers (viii) tanners and leather dressers (ix) printers and compositors (x) employees of an inland steamer or seagoing vessel (xi) railway workshop or steamer workshop employees and (xii) traders in jute only that is those who have clearcut occupations in rural areas. The trends are far from encouraging. At the end of the chapter will be found a list of rural industries commonly found in West Bengal districts covered in the Small Scale Industries census in 1951.

SECTION

RELATIVE PROPORTIONS OF DIFFERENT AGRICULTURAL CLASSES: CORRELATED TO DISTRIBUTION OF LAND IN AGRICULTURAL HOLDINGS OF DIFFERENT SIZES

62. There is little to add to the discussion already made in the last section and Section 6 of Chapter I on the relative proportions of different agricultural classes. The distribution of land in agricultural holdings of different sizes will now be discussed.

63. The direct bearing that the composition or relative proportions of different agricultural classes has on the distribution of land in agricultural holdings of different sizes is sharply brought out in Appendix II on Land Tenure Problems of Bengal at pp. 437-438, 445-446 and 449-452 of the Final Report of the Famine Inquiry Commission (1945) where it appraises the Report of the Land Revenue Commission in Bengal of 1940 with reference to the opinion of the local government. The Appendix is quoted at length to shorten discussion.

> The Government of Bengal have replied as follows: The Land Revenue Commission in their report, which was submitted in 1940, has examined the existing land system of Bengal in its various aspects with special reference to the permanent settlement and its effects on the economic and social structure as well as its influence on the revenues and administrative machinery of the Province of Bengal. In the opinion of the majority of the Commission the disadvantages of the existing system are as follows:—
>
> (1) The existing system has rendered land revenue almost entirely inelastic for about 150 years and the share which the Government ought to receive from the produce of the land is substantially less than the share taken in Provinces where there is no permanent settlement and where lands are less productive than it is in Bengal.
>
> (2) It has deprived the Government of the benefit of more valuable crops and higher prices and of any share in the increase in the value of land due to increase of population and extension of cultivation or growth of towns and the development of trade and industries the benefit of which is appropriated by a few. Government also does not get any share in the profit from mineral rights and fisheries in certain navigable rivers.
>
> (3) It has resulted in inequalities of assessment having no relation to the productive capacity of land.
>
> (4) The system has deprived the Government of the close contact with and intimate knowledge of rural conditions which the ryotwari system affords.
>
> (5) It has imposed an "iron framework which has had the effect of stifling the enterprise and initiative of all classes concerned" with the result that the efficient landlord-tenant system as visualized by Lord Cornwallis has not been realized. On the other hand, the "evils of absenteeism, and management of estates by unsympathetic agents resulting in unhappy relation between the landlords and tenants have grown to such an extent that Government has been compelled to employ for the protection of the tenants a more stringent measure of legislation than has been found necessary in temporarily-settled areas".
>
> (6) It has permitted the creation of a number of intermediaries between the zamindar and the actual cultivator none of whom have either the incentive or the power to provide any effective means for improvement of agriculture. The Government also finds little inducement to spend public money on agricultural development, as the benefit of the improvement goes into private hands, with the result that improvement of agricultural land is nobody's concern.
>
> (7) The number of rent receivers is ever on the increase while there is a steady reduction in the number of cultivating owners of lands and the dispossessed cultivators are swelling the number of *bargadars* or of landless agricultural labourers.
>
> (8) The complexities of the existing system have led to an immense volume of harassing and expensive litigation between the landlords and tenants and in the privately-managed estates, illegal collections still represent an appreciable addition to the burdens of the cultivators.
>
> (9) In permanently-settled areas it is virtually impossible to secure remission of rents in areas affected by drought, flood or other natural calamities.

(10) So long as the zamindari system remains, it will be difficult to evolve any satisfactory arrangement for revising rents all over the Province on an equitable basis and for maintaining the records-of-rights. It is also doubtful if under the existing system, the legislature would ever agree to provide a really efficient machinery for realization of rent with the result that arrear rents would go on accumulating and there will be a complete breakdown before long. The stability and security of the land system has already been threatened by the development of a no-rent mentality amongst the ryots in certain areas.

For the reasons summarized above the majority of members of the Commission are definitely of opinion that whatever may have been the justification for the permanent settlement in 1793, it is no longer suited to the conditions of the present time and that no other solution than State acquisition of the interests of all classes of rent-receivers on reasonable terms will be adequate to remedy the defects of the existing system. They are convinced that in order to improve the economic condition of the cultivators, the permanent settlement and zamindari system should be replaced by a ryotwari system. In that case Government as a sole landlord would be in a much stronger position to initiate schemes for (1) consolidation of holdings, (2) restoration of economic holdings, (3) provision of grazing lands, and (4) prevention of transfer of land to non-agriculturists. Government management, although it might not be universally popular, will certainly be more efficient and more in the interest of the agricultural population than zamindari management.

The Provincial Government add: "The minority view on the other hand is that socially, economically and financially, State acquisition would be a hazardous experiment and that no such scheme can be supported unless it can be clearly demonstrated that the cultivator will benefit by it. They hold that the present economic difficulties of the cultivators in Bengal are unconnected with the land revenue system. They are mainly due to (1) increasing pressure of population, (2) the Hindu and Muslim laws of inheritance, and (3) under-employment of the cultivators. These are the problems which would have to be faced whatever be the nature of the land revenue system of the country. On the other hand, under the existing system the occupancy ryots in Bengal pay lower rates of rent but enjoy greater privileges and protection than tenants in other Provinces. As regards subinfeudation, it is contended that it has led to a wide distribution of agricultural income and has given an interest in land to many of the middle classes. By State purchase they will be cut off from all connections with the land. This would inevitably lead to a social upheaval. The number of big landlords is very small; by far the largest majority own small estates and tenures and the compensation that they will receive will be insufficient to induce them to invest their money in industrial concerns. They will either squander the money or re-invest it in land by purchasing occupancy holdings and the result would be that a form of landlordism would again develop on a lower scale. Another grave danger of State landlordism is that the level of rent may become the subject of electioneering campaign as the tenants' votes now control the legislature."

As regards the economic condition of the cultivators, the Government say: "It must be pointed out, however, that as far as the different classes of estates in Bengal are concerned, there is no substantial difference in the economic condition of the cultivators. The principal impediments to extension of cultivation and adoption of improved methods of agriculture are—

(1) existence of a large number of intermediaries between the zamindar and the actual cultivator;
(2) ever-increasing pressure of population on agricultural land which has created an agricultural population —the majority of whom possess small-sized uneconomic holdings as there is not enough land to go round;
(3) excessive fragmentation and subdivision of holdings caused by the operation of the Hindu and Muslim laws of inheritance; and
(4) unrestricted right to transfer or sublet.

These drawbacks are common to the three systems of land tenure prevalent in this Province (*viz.*, the permanently-settled estate system, and estates held direct by Government). In Government-managed estates, although some extension of cultivation has been brought about by the system of colonization, it has not been possible to undertake any largescale scheme for improvement of agriculture. There is nothing, however, to prevent a cultivator from securing a fair return for his labour and enterprise although for reasons stated above the average cultivator has not much scope for enterprise."

Concluding, the Provincial Government state that they "have already considered the principal recommendations of the (Land Revenue) Commission regarding State purchase of zamindaris and have accepted the principle of bringing the actual cultivators into direct relation with Government by acquiring the interests of all classes of rent-receivers on reasonable terms. Necessary action to implement the decision is proposed to be taken as soon as normal conditions have returned in the country.

64. The above is explained by the following abstract on the prevailing systems of land tenure in Bengal (*ibid.*, pp. 437-48) and an explanation on the relationship between landlord and tenant (*ibid.*, pp. 445-446).

The principal system of land tenure is the Permanent Settlement created by Regulation I of 1793. The revenue was fixed in perpetuity and all zamindars were placed in the same category. While some farmers obtained some proprietary rights which they had never possessed, the independent chiefs and the old landholding families were confirmed in the position they had occupied for centuries. In certain cases, revenue-free grants made by former rulers which were subsequently recognized and confirmed, are held as revenue-free estates. Later when the policy underlying the permanent settlement was abandoned, new estates were created with either Government or private persons as proprietors, and they are liable to periodical revision of land revenue. The relative importance of these four different types of tenures may be seen from the table below:—

	Category	Number held (000's)	Area in millions of acres
I	Permanently-settled estates (revenue-paying)	94	37·37
II	Revenue-free estates	51	1·97
III	Temporarily-settled estates	4	3·34
			42·68
IV	Estates held direct by Government	4	3·65
			46·33

NOTE—These figures represent gross area of estates, and not merely of lands occupied by ryots in the estates. Further information furnished below is based mainly on the Report of the Land Revenue Commission, Bengal.

The "Estates held direct by Government" are the same as what are known as ryotwari tracts elsewhere. Most of the lands in the zamindari estates are held by ryots whose rights in the land and obligations to the zamindar have been regulated by a long series of tenancy laws, the net effect of which is that the ryot possesses substantially the same rights in his holding as ryots holding land direct from Government in Government estates in Bengal, and these again are practically identical with those of ryots holding direct from Government under the ryotwari settlement in other provinces. The incidence of the rent payable by the ryot to the zamindar in Bengal compares, in general, favourably with the incidence of land revenue payable to Government by ryots in ryotwari areas. The land held by a ryot may be cultivated either by himself or by crop-sharing tenants, or by underryots. Underryots fall into three classes, of which the first possesses practically all the rights of ryots except transferability: the second and the third differ from the first mainly as regards liability of ejectment in certain circumstances. The tenant who is not an underryot is usually a crop-sharer (called a *bargadar*) and his relations with the ryot are purely contractual.

The following table shows the area of lands held by ryots and underryots:—

Class of ryots and underryots	Area in millions of acres
Land held rent-free or on fixed rent	3·73
Land held by ryots . .	27·97
Land held by underryots .	3·09
TOTAL .	34·79

There is a limited extent of land in the cultivating possession of proprietors of estates and persons holding as under-tenure holders. The exact area is not known, but from certain estimates of these assets made by the Land Revenue Commission, it may be inferred that this is probably of the order of six hundred thousand acres or less than two per cent. of the total area held by ryots and underryots.

The characteristic feature of the present condition of proprietary rights in estates is the prevalence of subdivision and subinfeudation to a large extent. The zamindars are free to transfer their rights to whomsoever they might think proper by sale, gift, or otherwise. Where transfers of the nature of a perpetual lease subject to a rent reserved, are effected, a permanent under-tenure is created, which in its turn may be likewise subdivided and subinfeudated. "The development of subinfeudation has led to a revenue system of immense complexity, particularly in districts like Bakarganj, where as many as 15 or 20 grades of tenure holders are not uncommonly found."*

(i) There is no doubt that there is an increasing tendency for ownership of land to pass out of the hands of the cultivating classes. The transferees may be either non-agriculturists or agriculturists who have already got more land than they could cultivate directly. There is no reason to suppose that the tendency has been arrested or reversed; and it may be presumed to have been rendered worse by the Bengal Tenancy (Amendment) Act of 1938 which, by removing restrictions on rights of transfer, has greatly facilitated the passing of lands out of the hands of *bona fide* cultivators.

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* Report of the Land Revenue Commission, Bengal.

(ii) Absentee ownership has been increasing and is an evil because it has resulted in cultivation being done by indifferent agriculturists or rack-rented *bargadars* or under-tenants. No remedial measures have been tried. Possible remedies are stated to be (*a*) the provision of each agricultural family with an economic holding from which it can earn its livelihood, and (*b*) the interdiction of all kinds of transfer of agricultural lands to non-agriculturists.

(iii) Bengal Government have not commented on the rack-renting question so far as it relates to tenants at will. The views of the Land Revenue Commission on the *barga* system were as follows: "The system has many advantages. When a share of the crop is paid, fluctuations in the cash value of the produce have no application and whether there is a good or bad crop the amount paid varies with the outturn. The system is of great assistance to widows, minors, and other people who are temporarily incapacitated from agriculture. Such people would be great losers if their only way of getting their lands cultivated without losing for ever the right to return to it was the employment of labour hired by the day or the month. The disadvantages are as follows: The *barga* system overrides the principle that the tiller of the soil should have security and protection from rack-renting. No one denies that half the produce is an excessive rent. Further, the balance of opinion in all countries is that this system of cultivation is not economic and, therefore, not in the interests of the community as a whole. The cultivator only gets the benefit of half the value of any increase in yield, which is the reward of his own labour or enterprise. If the crop is even a partial failure, he does not earn the cost of cultivation." The Commission, therefore, recommended that *bargadars* who supply the plough-cattle, and agricultural implements should be treated as tenants and protected as underryots are protected—without necessarily all the rights of occupancy. The Commission further recommended that the share of the crop, legally recoverable, should be reduced to one-third instead of half, although it was recognized that there would be practical difficulties in enforcing the limitation.

65. All that is necessary now is to illustrate the above observations of the two Commissions with figures on (i) the incidence of rent in Permanent Settlement, (ii) the state of subinfeudation of rent-receiving interests and tenancies, the fragmentation of holdings resulting from subinfeudation and other economic causes and (iii) the deterioration of agriculture as a result of increasing pressure on the soil by pauperised tenants, *barga* cultivators and certain types of agricultural labourers. These are taken up *seriatim*.

(i) The incidence of revenue and rent under Permanent Settlement

66. Detailed discussion on land revenue and incidence of rent under Permanent Settlement has already been made in Section 1. The Permanent Settlement fulfilled at least one major expectation and that was a rapid extension of cultivation (whatever might be the quality of cultivation or increase in net produce as a result of this extension), engineered by landlords to catch up to what in 1793 was an exorbitant demand of land revenue. By the end of the nineteenth century all truly culturable waste had already been brought under the plough and there followed a stage after 1901 lasting for well over 40 years when cultivation remained almost static. The predominating characteristic of cultivation in West Bengal during 1901-1942 was no more an appreciable extension of cultivation but variations of crops on the same area according to the value set on a particular crop on the previous year. Thus cultivation alternated between paddy and jute according to their markets for the year in question, and as a consequence of the easy grain situation in Burma and the world in general, extension of cultivation did not proceed with the growth of population. As a matter of fact growth of population was very slow and capricious in West Bengal up to 1921 and it was only after that year that population made rapid progress. On the other hand extension of cultivation proceeded only by slow degrees until 1942.

67. In the meantime the price of agricultural produce improved, although by fits and starts, throughout the nineteenth century so that at the turn of the century, the incidence of rent of occupancy tenancies, that is, those which enjoyed fixed rent or fixed rate of rent under the law, grew progressively small in comparison with the value of produce on the soil. The following statement compares the rate of rent in raiyati and under-raiyat interests in the districts of West Bengal in 1940 with those of 1900. The statement is constructed on Tables Nos. VI and VIII published in pp. 107-113 of Report of the Land Revenue Commission, Bengal, 1940, Volume II, and letter No. 838 TR of the Government of Bengal to the Government of India, dated 24th June 1901.

STATEMENT IV.14

Value of produce and incidence of raiyati rent in West Bengal, 1901 and 1939

District	Value of Produce		Rent		Proportion of rent to produce	
	1939	1901	1939	1901	1939	1901
	Rs.	Rs.	Rs. A.	Rs. A.		
Burdwan	41	45	3 15	4 8	10	10
Birbhum	40	30	3 14	4 8	10	15
Midnapur	39	40	3 15	4 8	10	11
24-Parganas	46	45	5 13	4 8	13	10
Nadia	43	40	2 7	3 0	6	8

68. The incidence of rent, owing to a further phenomenal increase in agricultural prices during 1940-1951, must be much less in 1951 than in 1940.

69. Table X of Vol. II of the Report of the Land Revenue Commission, Bengal (p. 123), gives the incidence of revenue in the different provinces as follows:

STATEMENT IV.15

Incidence of revenue in the different provinces, 1940

Name of Province	Incidence per acre of total area				Incidence per acre of cultivated area			
	Permanently settled estates	Temporarily settled estates	Govt. managed or raiyatwari	Average	Permanently settled estates	Temporarily settled estates	Govt. managed or raiyatwari	Average
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
[illegible]	0 9 2	0 12 5	1 15 1	0 11 3	0 14 9	1 4 0	3 1 10	1 2 0
Bihar and Orissa	0 4 4	0 13 10	..	0 5 7	0 7 10	1 3 4	..	0 10 4
Madras	0 10 8	..	1 15 0	1 10 5	0 14 4	..	2 9 0	2 3 0
United Provinces	0 15 3	1 2 7	..	1 2 6	1 8 6	1 13 5	..	1 13 4

70. The following statement presents the number, demand, and collection position in 1950-51 of permanently settled, temporarily settled, and Government-held estates in West Bengal. The figures have been obtained by courtesy of district collectors and the Finance Department of West Bengal.

STATEMENT IV.16

Number, demand and collection of permanently settled and temporarily settled estates, and estates held directly by Government in West Bengal in 1950-51

	Permanently settled estates	Temporarily settled estates	Estates held directly by Government	Total
Number	21,564	1,430	1,970	24,964
Demand	11,516,487	1,874,785	3,079,862	16,471,134
Collection	10,509,123	1,653,411	2,137,598	14,300,132

(ii) The state of subinfeudation of rent-receiving interests and tenancies

71. An impression of the pace of subinfeudation and the economic instability of rent-receiving interests in the very short period of ten years can be gathered from the number of permanently settled estates and Government-held estates during 1941-50.

STATEMENT IV.17

Number of permanently settled estates and estates held directly by Government, 1941-50

(Figures for 1945-46 and 1946-47 do not contain those of West Dinajpur)

	Number of permanently settled estates	Number of estates held directly by Government
1941-42 . . .	21,445	1,720
1942-43 . . .	21,433	1,751
1943-44 . . .	21,452	1,816
1944-45 . . .	21,037	1,845
1945-46 . . .	20,917	1,863
1946-47 . . .	20,912	1,866
1947-48 . . .	21,196	1,904
1948-49 . . .	21,150	1,821
1949-50 . . .	21,126	1,951
1950-51 . . .	21,564	1,970

72. This explains how vulnerable permanently settled estates have become to small as well as medium economic crises. As soon as an economic crisis arrives there is a marked rise in subinfeudation born out of a desire to make the most of an income which in normal times one cares less about. This is exemplified by the rapid increase in the number of permanently settled estates during 1944-45, following the famine and epidemics of 1943-44, and again in the minor crisis of 1950-51. On the other hand the persistent, increasing pressure on the soil is exemplified by the steadily mounting number of estates held directly by Government, where facilities for registration of subinfeudation and a ready market for land is at its maximum, and where the increase is almost up a straight line.

73. An examination of the average size of holdings per agricultural family and the average size of tenancies that go to make these holdings will reveal the extreme limits that fragmentation has reached and the essentially uneconomic character of cultivation in the State. By the average size of a holding is meant the total area of all agricultural plots held by an agricultural family, and is usually computed by dividing the area of cultivated land by the number of agricultural families. It helps to create a wrong impression as if all the land thus suggested by the quotient is available for cultivation. Actually much of it is eaten up by boundary and protective embankments of each tiny plot, by the need of fallowing, by bad cultivation, the plough and oxen not being able to work well in such infinitesimal portions, by the waste of time and material involved in moving from one plot to another, so that if a man

has 4 acres it may be safely concluded that his effective cultivation is limited to about 3·5 acres at the most. On the other hand the average size of a tenancy means the amount of land covered by a particular tenancy right. It should be appreciated that a peasant can be a tenant under several landlords, and that the amount of land that he holds in one tenancy under a particular landlord may be in more than one physical plot. If a tenant holds land under four landlords, it means he has four tenancies or interests, and each tenancy may be spread over more than one plot. The sum of all the plots in all four tenancies may be any number of tiny pieces of land spread over the whole area of a village or even two or three villages, which he has to till by turns trudging along and skipping from plot to plot with plough, bullocks, seed and implements. The wasteful and uneconomic character of this fragmentation does not require to be explained in greater detail, nor does it take much of an effort of the imagination to discover why the *barga* or share-cropping and agricultural labour systems should be so rapidly on the increase. While, by the Hindu and Muslim laws of inheritance and the Permanent Settlement, tenancy interests are subject to continuous physical splintering into numerous fragments making it increasingly difficult for the tenant to cultivate each well by moving from plot to plot, the *bargadar* or agricultural labourer, who is comparatively unencumbered with any land to call his own or has just a tiny plot to form a nucleus of clustered farming, offers his services to tenants around him, offering to cultivate their lands on shares of produce. Thus more often than not while tenancies disintegrate into widely scattered plots, a work of physical clustering starts at another end, not under the owner tenant, but through the *bargadar* or agricultural labourer, who makes his own tiny plot of land the centre and goes on adding to it in all directions by taking on lands on the share or wage system. It is not suggested that the bargadar builds up economic units by taking settlements of contiguous plots. That is beyond his means. But invariably all the lands he cultivates are situated within the same mauza, while the various ryots from whom he takes them may have lands scattered over several. This is precisely what is meant by physical or economic clusters: not a group of contiguous plots but several of them scattered throughout one mauza instead of many. Plots in an area of ¾ths square mile are physically closer than plots scattered over several square miles. This is what has saved India's agriculture from utter ruination and prevented it from passing entirely into the hands of absentee moneylenders and capitalists. It has also prevented the tenant, the *bargadar* and the agricultural labourer from being reduced to absolute serfdom. Whatever may be the evil effects of the *bhag* and agricultural labour systems,—and they are many, not the least of which is the very careless and perfunctory manner of cultivation it leads to, causing steady deterioration in the fertility of the soil—they succeed to a certain extent in regrouping agricultural plots into some sort of economic clusters again, although under very 'stepmotherly care'. There is also another side to the question which is imperfectly appreciated but which a district collector pointed out in his evidence before the Bengal Provincial Banking Inquiry Committee in 1929-30 (Report, Vol. II—Evidence—Part I, pp. 192-3). What he said applies more to East Bengal where the average tenant is richer than his fellow in West Bengal, but nevertheless is true even of the latter: "Land tends to pass into the hands of the mahajans and other creditors. But owing to the scattered nature of the holdings, these creditors usually find it expedient to resell (or, in West Bengal, to let out in *bhag* or *barga*—A.M.), so that the land passes back again to cultivators. It is the cultivator in the end who is willing to give the highest price for good agricultural land. It is therefore the scattered nature of the holdings which prevents the cultivator from becoming a serf. I would emphasise this point. It is of the greatest importance and is usually lost sight of "

74. The statistics available may therefore be viewed from two points: (*a*) fragmentation of plots and (*b*) the diminution of units of cultivation or holdings as they are called. As for (*a*) material is available from three sources: (i) the settlement reports between 1915 and 1940; (ii) the Report of the Board of Economic Inquiry, 1935 (Calcutta Gazette, of the 24th January 1935—page 117); and (iii) the Report of the Land Revenue Commission, 1940. As for (*b*) the sources are, in addition to the three just mentioned, (iv) the Final Report on the Inquiry into Rural Indebtedness in West Bengal (1946-47); (v) the Final Report on the Inquiry into the Condition of Agricultural Labourers in West Bengal (1946-47); and (vi) information on the size of holdings thrown up by the Population Census of 1951. The two points are taken up *seriatim.*

(a) *Fragmentation of plots*

75. The following statement consolidates information from several settlement reports to show the distribution of tenancy interests (*raiyati* and under-*raiyati*) and average areas.

STATEMENT IV.18

Percentage of raiyati interests and area to total interests and area in settlement reports of West Bengal, 1915-40

District	0—1 acre	1—2 acres	2—3 acres	3—4 acres	4—5 acres	5—15 acres	15—25 acres	Over 25 acres	TOTAL
1 *Birbhum (1924-32)*— (1937)									
Percentage of tenancies to total tenancies	66·8	14·9	7·2	3·7	2·4	4·6	0·3	0·1	100
Percentage of area under tenancies to total area	15·2	16·6	13·5	10·0	8·1	26·9	4·8	4·9	100
Average area of each tenancy in acres	0·29	1·44	2·43	3·46	4·48	7·59	18·52	44·98	1·29
2 *Midnapur (1911-17)*— (1918)									
Percentage of tenancies to total tenancies	..	..	Under 5 acres : 93·2		..	4·8	0·7	1·3	100
3 *Hooghly (1930-37)*— (1942)									
Percentage of tenancies to total tenancies	73·2	15·2	..	2 to 5 acres : 9·7		5 acres and above :		1·9	100
Percentage of area to total area	29·0	23·8	..	2 to 5 acres : 31·7		5 acres and above :		15·5	100
Average area of each tenancy in acres	0·35	1·89	..	2 to 5 acres : 2·93		5 acres and above :		7·21	0·89
4 *Howrah (1934-39)*— (1940)									
Percentage of tenancies to total tenancies	79·1	13·1	4·1	1·7	0·8	1·1	0·1	0·0	100
Percentage of area under tenancies to total area	34·8	24·6	13·3	7·9	4·8	11·0	1·4	2·2	100
Average area of each tenancy in acres	0·33	1·40	2·41	3·42	4·45	7·24	18·56	48·09	0·74
5 *Murshidabad (1924-32)*— (1938)									
Percentage of tenancies to total tenancies	68·9	15·7	6·4	3·2	1·8	3·5	0·3	0·2	100
Percentage of area under tenancies to total area	18·6	18·0	12·7	9·0	6·6	21·9	4·6	8·6	100
Average area of each tenancy in acres	0·33	1·42	2·44	3·46	4·45	7·72	18·73	50·88	1·23
6 *Malda (1928-35)*— (1939)	44	24	..	2 to 5 acres : 22		..	5 and above : 10		100

AVERAGE SIZE OF INTEREST

76. The following simplified statement is borrowed from the Report of the Board of Economic Inquiry showing percentage number of families in classes A and B holding different quantities of land. Class A stands for families in debt less than 2 years' income and class B stands for families in debt less than 4 years' income.

STATEMENT IV.19

Percentage number of Families in debt Classes A and B holding different classes of lands in 1935

District	Total No. of families	No. of families in Class	Percentage number of families in each class of land				
			0-2 acres	2-4 acres	4-6 acres	6-8 acres	Over 8 acres
				(i) Class A			
Burdwan	490	197	5·3	9·8	8·8	5·7	10·6
Birbhum	252	133	9·9	17·1	10·7	4·0	11·1
Bankura	258	66	2·7	7·0	3·5	5·4	7·0
Midnapur	559	209	9·8	9·8	7·2	3·1	7·5
Nadia	304	176	34·2	19·4	3·3	0·7	0·3
Murshidabad	233	133	11·2	19·4	10·8	7·8	8·2
Malda	77	12	3·9	2·6	1·3	1·3	6·5
				(ii) Class B			
Burdwan	490	92	2·0	7·1	3·5	2·4	3·7
Birbhum	252	37	1·6	4·4	3·6	2·4	2·8
Bankura	258	45	5·0	6·6	1·9	0·4	3·5
Midnapur	559	62	1·4	3·6	2·1	1·1	2·9
Nadia	304	29	1·6	4·2	1·6	1·3	0·7
Murshidabad	233	25	3·0	3·0	1·7	0·9	2·2
Malda	77	1	..	..	1·3	..	..

77. The following statement borrowed from pages 107-8 of Vol. II of the Report of the Land Revenue Commission, Bengal, 1940 shows separately the average area per interest, *raiyati* and under-*raiytai*, compiled from district settlement reports.

STATEMENT IV.20

Average size of raiyati and under-raiyati interests in acres and incidence of cash rent per acre in West Bengal from Settlement Reports

District	Average area in acres per raiyati interest	Incidence of cash rent per acre of raiyati interest			Average area in acres per under-raiyati interest	Incidence of cash rent per acre of under-raiyati interest		
		Rs.	A.	P.		Rs.	A.	P.
Burdwan	1·26	3	15	0	·31	7	11	0
Birbhum	1·47	3	14	0	·31	6	4	0
Bankura	1·92	2	1	0	·7	2	3	0
Midnapur	1·36	3	15	0	·64	5	14	0
Hooghly	1·82	7	7	0	·73	14	0	0
Howrah	·89	8	3	0	·33	18	8	0
24-Parganas	1·9	5	13	0	·56	11	1	0
Nadia	2·08	2	7	0	·52	4	8	0
Murshidabad	1·27	3	7	0	·40	5	12	0
Malda	2·30	2	4	0	·47	5	10	0
Dinajpur	2·29	2	7	0	·63	5	12	0
Jalpaiguri	5·9	2	5	0	1·8	3	1	
Darjeeling	1·8	2	5	0	·64	3	0	0

(b) *Size of holdings*

78. The Settlement Officer of Burdwan (1940) stated that dividing 832,231 acres of cultivated land by 103,685 cultivating families (which exclude agricultural labouring families and rent-receiving interests but include *bhagdars*) the average holding came to 8 acres. In Bankura the average size of a cultivator's holding in 1924 was 1·86 acres (Report, p. 21). In Midnapur "the average number of plots per holding is 4, which are not as a rule contiguous to one another. Not only are the holdings small but they are divided up into several plots scattered widely over a considerable area involving for their cultivation a most uneconomic waste of time, labour and expense" (Report, p. 116). Figures for Hooghly gave an average size of 4·45 acres by dividing a cultivated area of 534,000 acres by 120,000 agricultural families which included agricultural labourers. But excluding the latter and rent-receiving interests the average cultivated area per agricultural family came to 7 acres. The average cultivated area per head of agriculturist came to 1·03 acres approximately. In Murshidabad, according to the Settlement Officer, "the cultivated area per family comes to 5·25 acres. Of this area 5 per cent. is left fallow from year to year. Of the remainder 32·83 per cent. yield a second crop while 76·00 per cent. yields paddy. Of the total cultivated area for the family a very small portion (recalculated at 17 per cent.—A. M.) has any chance of irrigation" (Report, p. 137). In Malda the average area of *raiyati* holdings works out at 2·30 acres (Report p. 76).

79. The next reliable source of the size of holdings and distribution of areas held by agricultural families is the Report of the Land Revenue Commission, Bengal, which published figures compiled "from inquiries made by Kanungoes, especially employed for the purpose, in typical villages in each district". The following statement is borrowed from pp. 114-15 of Vol. II of that Report.

STATEMENT IV.21

Distribution of areas held by an agricultural family, 1946

(Livelihood class I)

State and District	Average area per cultivating family in acres (L.C.I.)	Percentage of families with					
		less than 2 acres	2-3 acres	3-4 acres	4-5 acres	5-10 acres	10 acres and above
West Bengal (*excluding* Cooch Behar)	5·17	34·4	10·7	9·6	8·8	19·7	18·1
Burdwan	5·63	28·6	10·9	8·9	10·8	26·6	12·8
Birbhum	4·64	15·1	10·1	7·4	8·5	19·2	8·2
Bankura	3·17	53·7	8·9	7·8	4·5	14·8	10·3
Midnapur	4·23	38·2	16·1	10·9	10·5	17·6	6·7
Hooghly	3·74	32·4	13·1	13·0	10·9	18·8	10·2
Howrah	3·53	53·2	14·3	5·1	4·5	17·5	5·4
24-Parganas	4·33	56·5	10·7	8·6	4·7	10·9	7·2
Nadia	4·83	16·8	9·6	10·8	10·1	20·3	11·8
Murshidabad	4·30	38·3	10·1	9·3	7·5	16·0	7·7
Malda	3·34	54·2	7·8	8·4	6·9	15·9	6·8
Dinajpur	6·38	24·2	8·9	11·1	10·2	28·3	15·6
Jalpaiguri	8·76	5·3	6·0	10·9	16·4	38·2	20·4

80. At the last census, at the instance of the State Government a question was put to every person who tilled his own land as to the amount of land he cultivated himself and how much of it he cultivated through *Bargadars*. The results of own cultivation expressed as size of holding are set out in Subsidiary Table IV.1 in Part IC of this Report. The following is abstracted for West Bengal to offer comparison with the finding of the Land Revenue Commission.

STATEMENT IV.22

Distribution of areas held by an agricultural family, 1951

	Average area per agricultural family in acres (L.C.I.)	Percentage of families with					
		Less than 2 acres	2-3 acres	3-4 acres	4-5 acres	5-10 acres	10 acres and above
West Bengal (*including* Cooch **Behar**)	4·82	34·5	15·3	12·3	8·6	20·3	9·0

81. The two investigations, made at an interval of 11 years, in which a famine of very serious magnitude interposed, followed by a period of scarcity between 1948 and 1950, are quite close in results and can therefore be discussed with confidence especially for the range 0 to 5 acres. They show how the famine and agricultural scarcity has swelled the categories of 2 to 4 acres of land denoting a further impoverishment of immediately higher land groups who must have been compelled to sell some of their lands during periods of scarcity to keep their heads above water. It also shows a progressive concentration of large areas of cultivated land in fewer hands. Thirdly it shows a diminution in the average amount of land per agricultural family of owner cultivators.

82. The reader should be warned that the West Bengal Government inquiry was not directed to discovering the total quantity of land in the hands of *bargadars* and agricultural labourers and those agricultural owner-cultivator families and rent-receiving interests who cultivate more than 10 acres of land each.

83. The extent of this area was assessed by matching the figures supplied by the Department of Agriculture of West Bengal and those computed from the Census Survey and came to the tune of 3·5 million acres. A great deal of it must have been in the hands of 1·78 million sharecroppers (·75 million self-supporting persons) and agricultural labourers (1·03 millions self-supporting persons) many of whom own a little land each, as also in the hands of rent-receiving interests (39,000 self-supporting persons). The West Bengal Government inquiry was not intended to cover the lands in the hands of these categories. It is also doubtful whether persons owning more than 10 acres of land showed up their hands fully on account of the scare of zemindari abolition and the procurement drive. But the inquiry must have brought in substantially reliable results which are, indeed, a little depressing inasmuch as they confirm the fears expressed in 1940 by the Land Revenue Commision and all thinking men.

84. The extent of agricultural crowding will be discussed in the section on progress of cultivation and growth of population. It is necessary to consider the extent of fragmentation in the meagre land enjoyed by an owner cultivator, which renders economic cultivation so difficult leading to enormous waste. As no recent figures are

available one has to turn to page 116 of Vol. II of the Report of the Land Revenue Commission, 1940, which is reproduced below respecting West Bengal:

STATEMENT IV.23

Number of raiyati and under-raiyati interests held by cultivating families, 1940

State and District	No. of families inquired into	Percentage of families holding raiyati and under-raiyati interests					
		One interest	Two interests	Three interests	Four interests	Five interests	Over five interests
West Bengal	9,305	33·5	18·9	11·9	8·6	6·2	17·7
Burdwan	803	30·7	10·4	11·8	9·3	8·3	29·4
Birbhum	727	36·2	19·8	11·2	7·5	4·8	20·1
Bankura	670	41·6	15·8	9·3	8·1	4·6	20·2
Midnapur	1,110	31·0	23·8	13·7	13·1	5·4	13·0
Hooghly	595	22·8	18·9	18·8	9·0	9·2	26·3
Howrah	336	41·3	21·4	11·6	6·3	4·5	14·9
24-Parganas	1,174	34·5	22·6	10·4	5·7	5·2	19·3
Nadia	830	30·8	22·4	14·3	9·1	7·4	10·2
Murshidabad	1,178	35·7	16·4	11·8	8·9	6·8	20·4
Malda	332	60·5	18·1	6·9	4·3	5·1	5·1
Dinajpur	1,020	23·9	18·9	15·7	11·6	6·7	19 3
Jalpaiguri	530	33·9	15·2	6·6	3·3	4·3	3·1

85. This brings us to the question of the increasing loss of occupancy rights among owner-cultivators and the following statement borrowed from page 120 of Volume II of the Report of the Land Revenue Commission in Bengal in 1940 shows the manner in which raiyati areas transferred during the previous 12 years (1928-1940) were cultivated. "The rapid increase in the number of bargadars is one of the most disquieting features of the present times; and it is an indication of the extent to which the hereditary ryots are losing their status and being depressed to a lower standard of living. It is true that the successive provisions of the Tenancy Acts have endowed the ryots with the practical ownership of the land. But a large and increasing proportion of the actual cultivators have no part of the elements of ownership, no protection against excessive rents, and no security of tenure" (Report of the Land Revenue Commission, Vol. I, pp. 38-39).

STATEMENT IV.24

The manner in which raiyati land transferred during 1928-40 was cultivated in 1940

State and District	Total area inquired into (acres)	Transferred during 1928-40		Transferred area cultivated			
		Area (Acres)	Percentage	By purchaser's family	By bargadars	By labourers	By under-tenants
West Bengal	48,150·44	3,911.72	8·1	1,427·58	1,259·40	291·57	933·17
Burdwan	4,759·15	185·83	3·9	82·32	65·36	38·15	..
Birbhum	3,375·58	226·34	6·7	46·32	92·82	87·20	..
Bankura	5,479 86	368·05	6·7	48·47	77·06	36·99	205·53
Midnapur	4,693 64	349·64	7·4	120·03	175·81	39·14	14·66
Hooghly	2,228·00	60·83	2·7	29·93	25·72	5·18	..
Howrah	1,186·30	24·29	2·0	7·29	16·80	0·20	..
24-Parganas	5,083·42	412·68	8·1	133.15	190·41	25·05	64·07
Nadia	4,008·57	877·50	21·9	570·24	172·00	27·60	107·66
Murshidabad	5,070·62	638·74	12·6	127·95	152·65	1·00	357·14
Malda	1 107·93	77·02	7·0	48·51	17·95	..	10·56
Dinajpur	6,512·22	250·84	3·9	147·31	87·23	16·13	0·17
Jalpaiguri	4,645·06	439·96	9·5	66·06	185·59	14·93	173·38
				or 36·5 per cent. of transferred area	or 32·2 per cent. of transferred area	or 7·5 per cent. of transferred area	or 23·9 per cent. of transferred area

86. This shows what a comparatively small percentage of the transferred land is cultivated by the buyer or a protected under-tenant and how much of it is turned over to rack-rent by *bhag* cultivation, which according to a

Settlement Officer already quoted "from an economic point of view is hopelessly bad and is always associated with inferior cultivation".

87. A table in the Report of the Land Revenue Commission of 1940 affords a comparison with material compiled in the last census to show how much of land is cultivated by family-members and *bargadars*. The following statement compares the manner in which lands were cultivated in 1940 and 1951.

STATEMENT IV.25

The manner in which lands were cultivated in 1940 and 1951

State and District	Percentage of land cultivated			
	By family-members and labourers		By bargadars	
	1951	1940	1951	1940
West Bengal	79·7	77·4	20·3	22·6
Burdwan	70·8	74·8	20·2	25·2
Birbhum	77·9	75·2	22·1	24·8
Bankura	72·6	70·8	27·4	29·2
Midnapur	81·0	82·9	19·0	17·1
Hooghly	79·6	69·5	20·4	30·5
Howrah	85·0	76·6	15·0	23·4
24-Parganas	86·7	77·7	13·3	22·3
Nadia	84·4	75·9	15·6	24·1
Murshidabad	79·8	74·2	20·2	25·8
Malda	81·8	90·4	18·2	9·6
Dinajpur	78·6	85·5	21·4	14·5
Jalpaiguri	68·0	74·1	32·0	25·9
Darjeeling	92·1	Not available	7·9	Not available
Cooch Behar	80·2	Not available	19·8	Not available

88. This suggests a slight decline in the proportion of cultivation by *bargadars* between 1940 and 1951 but how much of this decline, in the background of the recent Bargadars Act, is genuine it is difficult to say. On the other hand cultivation by contract labour or attached labour seems to have increased. Seeing that the 1951 Survey was confined to interrogating owner-cultivators only the latter may have underdeclared *bargadars*.

89. There is very little material available to show how much land in each district and West Bengal is cultivated under the *barga* system. The Land Revenue Commission did not attempt a survey and whatever information is available in several (not all) settlement reports is out-of-date. Besides a settlement is not concerned with *barga* cultivation. In the last census this information was compiled at the instance of the West Bengal Government and the following statement shows the percentage of land cultivated in *barga* from owner-cultivators in 1951:

STATEMENT IV.26

Percentage of land cultivated in barga in each class of holding by size in 1951

Size of holding of owner cultivator	Percentage of column (1) cultivated in barga
1	2
0-1 acres	16·0
1-2 „	15·9
2-3 „	15·7
3-4 „	17·8
4-5 „	21·3
5-6 „	22·8
6-7 „	24·0
7-8 „	26·0
8-9 „	25·3
9-10 „	28·7
10-15 „	30·3
15-20 „	36·1
20-25 „	40·7
25-33⅓ „	41·0
Over 33⅓ acres	55·3
TOTAL	20·3

90. The statement shows to what extent the *barga* system has permeated all sizes of cultivation. In holdings below 5 acres, *barga* cultivation extends to as much as about a sixth of the total, while in holdings between 5 and 10 acres, it covers as much as a quarter, and in holdings above ten acres between a third and more than a half.

91. No information exists as to the amount of land enjoyed by *bargadars* in their capacity as tenants or owner-cultivators.

92. In regard to agricultural labourers (Livelihood Class III) the *Final Report of Inquiry into the Condition of Agricultural Labourers in West Bengal, 1946-47,* ascertained the amount of land owned by families of agricultural labourers. The following statement is borrowed from page 7 of that Report:

STATEMENT IV.27

Percentage of agricultural labourers in families classified according to amount of land owned, 1946-47

Cultivable land owned by agricultural labourer family	Percentage of agricultural labourers from families with principal occupation			
	Cultivation	Agricultural labour	Non-agricultural labour	Total
0	31·5	71·0	73·3	57·9
0—2	36.8	26·0	20·4	28·9
2—5	23·7	2·5	5·3	10·1
5—10	7·1	0·1	0·7	2·6
10 and above	0·9	0·4	0·3	0·5
TOTAL	100	100	100	100

93. It will be seen that 71·0 per cent. of agricultural labourer families had no land at all, 26·0 per cent. had land less than 2 acres each, and only 3 per cent. had more than 2 acres each.

94. Quite a large proportion of these agricultural labourer families are what the recent Agricultural Labour Inquiry calls "attached agricultural labour". The following is an extract from *The Statesman* of 14 September 1952 on the economic state of these attached agricultural workers in West Bengal as revealed by the Agricultural Labour Inquiry:

> The Central inquiry into the living conditions of agricultural labour in India shows that in West Bengal an attached agricultural worker, as opposed to a casual worker, receives the depressingly low average monthly remuneration of about Rs. 22.
>
> Fiftynine villages were selected for this inquiry in West Bengal. The inquiry, which covers all the States, including Jammu and Kashmir, is a unique and valuable piece of research into several aspects of the rural life of the country.
>
> In consultation with the West Bengal Government, the State was divided into eight zones and the villages were selected on the basis of 'stratified random survey'.
>
> In the district of Darjeeling, the Siliguri subdivision and the district of Jalpaiguri which together constitute Zones 1 and 2 under the inquiry, no attached labour was found in any sample village. This was also true of the southern portion of the district of 24-Parganas and of the Contai and Tamluk subdivisions.
>
> Attached workers, employed in the remaining area, were mostly drawn from the scheduled or other backward classes. As in many parts of Uttar Pradesh, they were generally indebted to the employers from whom they obtained loans, advanced on the condition that they and members of their families worked for the creditor on his farm. They were also expected to do household duties.
>
> The chapter on Uttar Pradesh says that the system of advancing loans deprived the worker of his bargaining power as he was perpetually in debt. Presumably, this was also true of the agricultural worker in West Bengal.
>
> Women were not usually employed as attached workers; adult males were engaged for agricultural and domestic work while boys helped in grazing cattle and doing other odd jobs during the busy season.

The inquiry revealed that there were no uniform terms of contracts of employment. Generally, attached workers were engaged either as farm servants or as domestic servants or probably as both. Their annual remuneration was about Rs. 100. This amount was paid in cash or in kind. In addition, a worker received two meals a day, valued at about 10 annas. It was also customary to supply two dhoties and two pieces of clothing during a year. The value of these perquisites was about Rs. 10 per annum. The total remuneration amounted to about Rs. 22 a month.

The person who worked purely as a farm servant usually received one-third of the produce of the land he cultivated, the cost of cultivation being borne by the employer. Some employers allotted one bigha of land to the attached worker on the condition that he worked in the employer's fields during the busy season on reduced daily wages.

For this small earning, the labourer had to put in nearly 12 hours' work a day. The working day in the slack season consisted of 6 to 8 hours, exclusive of the rest period.

The inquiry regarding the casual worker was equally revealing. While men were engaged for all agricultural operations, women and children were employed for transplanting and harvesting. Sometimes the worker was given cold rice in the morning or a midday meal in addition to his small daily wage.

SECTION 4

PROGRESS OF CULTIVATION CORRELATED TO GROWTH OF GENERAL POPULATION

95. Subsidiary Tables IV.7-9 printed in Part IC of this Report conceal, behind the categorical form in which the statistics are presented, the want of reliable agricultural statistics. This was lamented as early as in 1876 by Macdonell in his Report on the Food Grain Supply of Bengal and Bihar (Introduction, p. iii) and is still lamented by the Economic Commission for Asia and the Far East in the following terms (Economic Bulletin for Asia and the Far East, 1951 Vol. II, No. 1, pp. 23-24).

> Production estimates of principal agricultural crops put out by many governments have generally provided the primary material for product estimates of the rural population. There are various limitations, however, which need to be taken into account. First, the statistics are not comprehensive. In India, for instance, no report on the acreage under cultivation is available for between one-fifth and one-quarter of the area of the country. Secondly, while it is possible to obtain the production of the primary crops, no regular information is available on the products from the crops. Thus, it is possible to know the production of castor seed in India, but the production of castor oil is not estimated. Thirdly, the estimates of the primary crops which are available leave much to be desired. In general, they are derived on the formula:
>
> Acreage under cultivation × normal yield × current yield as percentage of normal.
>
> In India, the reliability of the acreage estimates depends on the reporting agency. In the areas under temporary settlement of revenue, the revenue agency is permanently located and estimates are supposed to be fairly trustworthy. On the other hand, in permanently settled areas, where there is no regular revenue agency, the village policemen are responsible for the reporting of the acreage under different crops, and their estimates have proved to be unreliable. The normal yields are obtained by crop-cutting experiments over a period of years in fields which are selected as typical. A system of successive guesswork also comes into operation to estimate the current season as a proportion of the normal season. The preliminary guesses are made by the village agency; they are corrected by the circle and district agencies, and finally by the directors of the departments of agriculture in the States. They tend to be very much the product of subjective elements.

96. An interesting case happened to a Bengal district not many years ago when a plot to plot cadastral survey revealed a net area under cultivation almost double of what the Department of Agriculture had been wont to publish up to that year. Did it connote, one wonders, that that district had suddenly turned from poverty to plenty, from an importing district to an exporting, from a deficient to a self-supporting one? Of course, it continued to live its old life which the sudden improvement in statistics did not much affect.

97. Very able discussions on the position of foodgrains in relation to population are available in the Settlement Reports, the Report of the Land Revenue Commission, the Report of the Foodgrains Policy Committee, and the Report of the Famine Inquiry Commission. It is not proposed to go over them again, but it will suffice here to quote the yield rates over a long period of the two main cereals in this State, *aus* and *aman* paddy, district by district to show the efficiency of cultivation and the trend of the fertility of the soil.

STATEMENT IV.28

Yield per acre of aman paddy and rice, 1915-51

(20 mds. of paddy=13⅓ mds. of rice)

State and District	Settlement Officer's estimate in mds. per acre (paddy)	Quinquennial crop-cutting reports (average of 5 years 1932-37) (paddy)	Adopted normal yield (paddy)	Crop-cutting experiments	
				1946-47 (rice)	1951-52 (rice)
West Bengal	..	..	..	**10·3**	**10·20**
Burdwan	23	10·11	20	11·1	11·65
Birbhum	18	15·21	18	11·8	12·36
Bankura	16	21·74	18	11·8	14·36
Mdnapur	16	16·83	18	10·5	11·28
Hooghly	22	17·26	22	9·3	8·92
Howrah	22	21·69	22	7·5	10·00
24-Parganas	20	16·83	20	9·9	8·16
Nadia	16	14·59	15	8·8	5·93
Murshidabad	18	14·89	17	9·6	8·58
Malda	17	15·43	17	10·8	7·91
West Dinajpur	19	20·43	19	9·1	7·33
Jalpaiguri	22	17·73	21	8·5	9·58
Darjeeling	..	..	..	12·5	13·24
Cooch Behar	..	..	..	10·5	8·77

STATEMENT IV.29

Yield per acre of aus paddy and rice, 1915-51

(19 maunds of paddy=12⅔ maunds of rice)

State and District	Settlement Officer's estimate in mds. per acre (paddy)	Quinquennial crop-cutting reports (average of 5 years 1932-37) (paddy)	Adopted normal yield (paddy)	Crop-cutting experiments	
				1946-47 (rice)	1951-52 (rice)
West Bengal	..	..	..	**7·8**	**8·4**
Burdwan	20	16·20	16	8·3	8·13
Birbhum	15	14·85	18	7·7	10·79
Bankura	16	16·29	16	9·5	7·42
Midnapur	12	14·76	16	7·0	8·18
Hooghly	19	18·78	19	8·0	9·21
Howrah	16	15·19	16	7·0	9·89
24-Parganas	14	14·10	15	11·4	11·38
Nadia	13	13·00	13	6·9	9·20
Murshidabad	15	15·61	16	7·4	8·19
Malda	12	11·13	12	5·9	7·76
West Dinajpur	13	15·52	15	7·9	8·16
Jalpaiguri	18	13·77	15	5·8	8·18
Darjeeling	..	..	..	10·4	6·66
Cooch Behar	..	..	..	Not available.	6·75

98. It is necessary to find out whether the State as a whole is even or surplus or deficit in food production for the population it contains. It may be useful to precede the inquiry with an account of seed requirements per acre, loss in driage, storage, grinding, etc. Unfortunately, no estimate of consumption of cereals by domesticated animals is available nor the damage caused to standing crops by wild animals, diseases and pests. The following estimate of seed requirements per acre have been obtained by courtesy of the Department of Agriculture, West Bengal:

Seed requirements per acre

1 Rice:	*Aus*	30-40 seers
	Aman	12-15 "
2 Wheat		30-40 "
3 Barley		30-40 "
4 Gram		24 "
5 Joar:	For grain	20 "
	For fodder	40 "
6 Bajra:	For grain	15 "
	For fodder	30-40 "
7 Maize:	For grain	20 "
	For fodder	40 "

99. The following account of average storage loss and milling outturns in West Bengal conditions has been kindly furnished by the Directorate of Agricultural Marketing of West Bengal.

Average storage loss in West Bengal conditions

	Paddy	Rice	Wheat	Barley	Gram	Maize	Jowar and Bajra
Causes	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
1 Driage	2 to 3	2 to 2½	1	1	1	5	
2 Weevil damage . . .	1	1 to 1½	2 to 4	1	½ to 2	Negligible	As under wheat
3 Damage by damp . . .	¼ to ½	½	1 to 1½	1 to 1½	½ to 1	¼	
4 Loss by vermin . . .	¼ to ½	¼ to ½	1 to 5	1 to 2	1 to 5	1¼	
Total Loss . . .	3½ to 5	3¾ to 5	5 to 11½	4 to 5½	3 to 9	6½	

NOTE—The above storage losses only indicate a general trend. Period of storage, type of receptacles used, nature of storage godowns, etc., account for variation in storage losses from area to area and commodity to commodity. Driage is more in Bag storage than in the case of Bulk storage. If the storage period extends over the monsoon the gain in weight due to absorption of moisture wholly or partially offsets the loss due to driage in hot months. Damage due to damp, weevil and vermin is small before monsoon.

Milling Outturns

Paddy	Wheat	Barley	Gram	Maize	Jowar and Bazra
63·3 to 70 per cent. rice (By milling)	39 to 39½ seers. of Atta (By chakkis)	As under wheat	Dal 66 per cent. Chuni 20 per cent.	..	As under wheat
72 per cent rice. (By hand-pounding)	(½ to 1 seer per md. for urai jalai).		Husk and dirt 14 per cent.		
	No loss by grinding in Roller Mills which on the other hand give a "milling gain" of about 1 to 1·5 per cent. due to added moisture				

100. The following statement on the production and requirements of paddy in West Bengal has been kindly prepared by the Director of Statistics, Department of Food, West Bengal. It is in two parts, the first explaining the total production of paddy in 1950-51 and the second the total requirements of paddy in the State in the same year. The calculations, according to the Director, were based largely on *Agricultural Statistics by Plot to Plot Enumeration* by H. S. M. Ishaque and C. C. Sen.

Producers of Paddy and Surplus in West Bengal, 1950-51

Size of Holdings	No. of families in lakhs	Percentage of families in terms of total	Annual production of cereals in thousand tons at 10 mds. per acre	Seed and Wastage in thousand tons at 10 per cent. of yield	Wages in kind *plus* share of Bargadars, etc., in thousand tons	Minimum consumption requirements in thousand tons at 1 lb. per head per day (family size—5)	Deficit (—) or Surplus (+) in thousand tons
1	2	3	4	5	6	7	8
I Less than 2 acres . . .	10·23	44·1	395	40	*Nil*	833	—478
II 2 to 3 acres	2·71	11·7	262	26	*Nil*	221	+15
III 3 to 4 acres	2·23	9·6	301	30	*Nil*	182	+89
IV 4 to 5 acres	1·97	8·5	341	34	*Nil*	160	+147
V 5 to 10 acres	4·26	18·4	1,282	123	111(*a*)	347	+651
VI 10 to 25 acres . . .	1·63	7·0	1,092	109	328(*b*)	138	+522
VII Above 25 acres . . .	0·17	0·7	273	27	123(*c*)	14	+109
TOTAL .	23·20	100·0	3,896	389	562(*d*)	1,890	+1,617(*e*)

(*a*) 10 per cent. of the net yield.

(*b*) 33⅓ per cent. of the net yield.

(*c*) 50 per cent. of the net yield.

(*d*) Goes mainly to the cultivating families belonging to categories I, II and III. A large percentage of the cultivators belonging to category I being pure agricultural labourers, category I is likely to have an over-all deficit in the year as a whole even after taking into account the portion it receives of the crop shown under column (6).

(*e*) Obtained by deducting from the total of column (4) the sum of the totals of columns (5) and (7). A rough estimate of the normal marketable surplus in this province may be prepared by adding to the sum of the *plus* figures in column (8) 50 per cent or so of the figures in column (6). The total thus obtained is 1,814 thousand tons which represents about 47 per cent of the total crop.

(1) Annual surplus of producers holding more than 4 acres each—1,429 thousand tons. 25 per cent. of this means about 357 thousand tons against 467 thousand tons and 437 thousand tons actually procured by West Bengal Government during 1948 and 1949 respectively and against 456 thousand tons procured in 1950 upto 18th December.

(2) The total population covered by cultivating families owning more than 4 acres each is about 41 lakhs. There are 75 lakhs or more people among the cultivators in West Bengal and they would consume annually about 1,236 thousand tons and would have a gross cereal production on their own lands of about 958 thousand tons (*i.e.*, net yield of 862 thousand tons) and would obtain about 562 thousand tons as Bargadars, etc. They will thus have a total supply of 1,424 thousand tons which will leave them with a small surplus of 188 thousand tons. The cultivators as a whole in West Bengal will thus have a normal surplus of 1,617 thousand tons of cereals including the surplus of 1,429 thousand tons of producers holding more than 4 acres each. As against this, there are other non-producing rural people (about 80 lakhs of persons) who consume about 1,043 thousand tons of cereals annually at 16 ozs. per adult or 12·8 ozs. per head per day. Of these 80 lakhs of people 8 lakhs of labourers under the Large Employers outside the rationed towns are statutorily rationed at present. Finally, there are about 90 lakhs of purely urban people (of whom 59 lakhs are statutorily rationed at present) who consume about 1,100 thousand tons of cereals annually at 12 ozs. per head per day. (16 ozs. per head per day for heavy manual workers, 12 ozs. for other adults and 6 ozs. for children). West Bengal's present annual deficit comes thus to about 526 thousand tons, her net yield of crops (cereals) being 3,507 thousand tons and the consumption requirement of her total population of 286 lakhs (including 45 lakhs of refugees) being 4,033 thousand tons.

PROCUREMENT AND CONSUMPTION OF PADDY

101. The following statement on the prospect of procurement of paddy in the State has been kindly prepared by the Deputy Director of Procurement, West Bengal.

Statement showing available surplus from different grades of producers owning five acres and above of paddy lands, 1953

Name of District	Name of Circle	5 acres & above but below 10 acres			Only 10 acres			Above 10 acres		
		No. of producers	Total Acreage	Available surplus Tons-Rice	No. of producers	Total Acreage	Available surplus Tons-Rice	No. of producers	Total Acreage	Available surplus Tons-Rice
1 Burdwan	Burdwan	20,000	133,333	9,796	2,836	28,360	3,115	12,614	208,810	28,409
2 Birbhum	Birbhum	17,786	119,420	8,435	2,130	21,390	2,822	12,259	189,662	35,178
3 Bankura	Bankura	11,937	74,637	3,968	1,484	14,840	814	6,318	85,120	9,540
4 Midnapur	Midnapur	9,158	64,899	201	2,021	20,210	186	9,289	174,127	18,332
	Khargpur	4,291	46,819	1,377	1,736	17,360	109	7,003	135,556	17,929
	Contai	36,747	201,682	4,591	342	3,420	249	2,899	54,265	6,450
5 24-Parganas	Alipur (Including Howrah)	6,224	53,941	7,881	2,154	21,540	1,332	20,153	296,617	14,838
	Basirhat	5,738	38,320	869	603	6,030	180	5,597	108,970	6,020
6 West Dinajpur	West Dinajpur	4,836	28,939	845	408	4,014	316	9,022	168,990	15,502
7 Hooghly	Arambag	20,460	143,283	..	302	3,020	210	3,198	38,124	210
	Chinsurah	24,306	104,448	..	315	4,500	155	5,126	29,624	..
8 Murshidabad	Murshidabad	3,079	25,728	735	1,011	10,110	740	5,625	93,069	336
9 Cooch-Behar	Cooch Behar	5,177	44,101	1,412	710	7,100	508	3,590	52,154	2,329
10 Malda	Malda	4,881	33,117	1,198	820	8,200	386	4,302	94,867	4,302
11 Nadia	Nadia	12,671	82,839	1,539	884	8,840	30	3,080	..	..
12 Jalpaiguri	Jalpaiguri	1,175	8,908	270	507	5,070	166	3,813	99,857	5,277
	Total	189,375	1,204,423	43,117	18,272	184,004	11,318	113,978	1,830,412	164,652

102. It may be interesting to compare the production and consumption of paddy in 1931 and 1951. The following statement is borrowed from page 106 of Vol. II of the Report of the Land Revenue Commission of Bengal, 1940 and the next statement is borrowed from page 71 of *West Bengal Independence Anniversary* published on the 15th August 1952.

STATEMENT IV.30

Production and consumption of paddy in 1931

District	Population as per census of 1931 (in thousands)	Production of paddy (thousand maunds)	Consumption at standard rate of 9 maunds per head (thousand maunds)
1	2	3	4
Burdwan	1,576	18,032	14,184
Birbhum	948	12,873	8,532
Bankura	1,112	12,373	10,008
Midnapur	2,799	32,206	25,191
Hooghly	1,114	9,777	10,026
Howrah	1,090	4,381	9,891
24-Parganas	2,714	24,569	24,426
Nadia	1,530	13,908	13,770
Murshidabad	1,371	11,887	12,339
Malda	1,054	9,489	9,486
Dinajpur	1,755	31,913	15,795
Jalpaiguri	983	16,085	8,847
Total	18,055	197,583	162,495

103. The table does not include Calcutta, and does not take into account the consequences of the Partition of 1947 on 24-Parganas, Nadia, Malda, Dinajpur and Jalpaiguri. "The estimate of production is based on adopted normal yield in Table II. The estimate of consumption is based on the assumption that everybody gets full meals."

It will appear that even in 1931 West Bengal with about 3·0 millions of net immigrants less to feed was not quite self-sufficient in paddy. The following statement shows how chronically it has come to depend on imports of foodgrains for feeding its population.

STATEMENT IV.31

Production and requirement of rice in West Bengal, 1950-52

(Figures in thousands)

District	Population in thousands as per 1951 census (Provisional)	Consumption requirement at 4·25 maunds per head per year	Net production of cereals after deducting 10 per cent. for seed and wastage			Government Procurement			Offtake from Government stocks		
			1950	1951	1952 expected	1950	1951	1952 up to 15th April	1950	1951	1952 up to April 15
(1)	(2)	(3)	(4.1)	(4.2)	(4.3)	(5.1)	(5.2)	(5.3)	(6.1)	(6.2)	(6.3)
		Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons
24-Parganas . .	4,596·2	717·6	469·2	469·4	384·9	72·6	58·1	20·2	165·2	191·5	56·4
Nadia . . .	1,146·4	179·0	121·4	119·5	96·2	6·3	2·4	..	36·4	39·4	7·5
Murshidabad . .	1,714·5	207·7	192·6	253·6	207·8	7·1	5·3	0·9	12·4	12·9	2·0
Burdwan . . .	2,188·7	341·7	372·9	466·4	381·3	96·9	75·6	30·3	47·8	51·2	15·2
Birbhum . . .	1,068·8	166·9	264·0	333·3	292·4	77·0	88·8	30·0	3·6	3·9	1·1
Bankura . .	1,319·4	206·0	298·7	309·0	333·4	41·7	46·7	19·7	4·0	4·5	1·5
Midnapur . . .	3,352·9	523·5	600·5	789·7	749·3	97·2	111·5	47·9	18·3	17·2	4·8
Hooghly . . .	1,556·9	243·1	196·4	193·8	126·7	12·6	11·7	3·8	50·5	52·6	16·0
Howrah . . .	1,619·0	252·8	78·2	85·7	74·7	..	..	..	98·9	98·7	27·8
West Dinajpur . .	708·0	110·5	179·8	161·2	137·0	40·1	20·7	10·8	8·9	2·8	0·4
Jalpaiguri . . .	905·3	141·3	157·8	122·9	140·0	11·1	4·0	2·7	43·5	44·4	11·5
Darjeeling . . .	445·3	69·5	42·8	45·6	50·1	0·6	0·5	0·3	38·7	41·0	12·4
Malda	946·7	147·8	146·5	153·4	123·8	4·8	3·7	1·0	10·1	11·6	2·1
Cooch Behar . .	668·8	104·4	120·2	131·5	127·4	5·1	2·8	1·5	5·8	10·6	2·3
Calcutta . . .	2,549·8	398·1	..	..	..	..	..	..	322·9	316·6	95·0
TOTAL .	24,786·7	3,869·9	3,326·0	3,635·0	3,225·0	473·1	431·8	169·1	866·5	898·9	256·0

(Figures in thousands)

District	Population as per census of 1951 (Provisional)	Population under Statutory Rationing including under Large Employers during April 1952	Population under Modified Rationing as on May 1, 1952	Population under Modified Rationing during April 1951	Procurement from the Districts		Offtake of total cereal from Government stocks	
					1951	1952 up to April 15	1951	1952 up to April 15
					Tons	Tons	Tons	Tons
1 24-Parganas .	4,596	1,641	332	59	58·1	20·2	191·5	56·4
2 Nadia . .	1,146	15	352	226	2·4	*Nil*	39·4	7·5
3 Murshidabad .	1,715	22	*Nil*	19	5·3	0·9	12·9	2·0
4 Burdwan . .	2,189	495	49	*Nil*	75·6	30·3	51·2	15·2
5 Birbhum . .	1,069	23	*Nil*	*Nil*	88·8	30·0	3·9	1·1
6 Bankura .	1,319	27	*Nil*	*Nil*	46·7	19·7	4·5	1·5
7 Midnapur . .	3,353	140	*Nil*	*Nil*	111·5	47·9	17·2	4·8
8 Hooghly . .	1,557	386	50	89	11·7	3·8	52·6	16·0
9 Howrah .	1,619	826	33	88	*Nil*	*Nil*	98·7	27·8
10 West Dinajpur .	708	1	27	*Nil*	20·7	10·8	2·8	0·4
11 Jalpaiguri . .	905	325	108	212	4·0	2·7	44·4	11·5
12 Darjeeling . .	445	273	255	193	0·5	0·3	41·0	12·4
13 Malda . .	947	1	31	142	3·7	1·0	11·6	2·1
14 Cooch Behar .	669	16	65	45	2·8	1·5	10·6	2·3
15 Calcutta . .	2,550	3,004	*Nil*	*Nil*	*Nil*	*Nil*	316·6	95·0
TOTAL .	24,787	7,204	1,302	1,073	431·8	169·1	898·9	256·0

NOTE—The populations given in this Statement are provisional.

SECTION 5

CONCLUDING REMARKS

104. It has been a standing complaint in West Bengal since 1870 that the land does not bear as much as it used to. Owing to the absence of reliable statistics of yield over a long period no assertion can be made either proving or disproving this lament. Chroniclers of more than a hundred years ago have left it on record that the yield could be as high as 35 maunds of paddy per acre. A recent experiment in Birbhum and other districts has reported an yield of 73 to 100 maunds with improved seeds, irrigation and farming methods. George Watt in his Economic Dictionary stated the normal yield of paddy in Bengal to be 35 maunds. But after 1872, except for freak yields, a figure over 22 maunds of paddy per acre in West Bengal has seldom been reported. A comparison of the yield of rice in this State with that of other states and countries underlines how low the yield is in West Bengal considering its natural and climatic advantages. No other province or country has greater natural advantages. As Statement IV.28 will show the yield per acre has still further deteriorated since the Settlement Operations. The Land Revenue Commission in 1940 thought that 18·8 maunds of paddy per acre as the average for Bengal as a whole was not an overestimate, but several members on the Commission thought that the yield must be less than 16 maunds per acre, " otherwise there would be a surplus production of rice in Bengal ".

105. On any showing the yield is very low and what is more, cultivation is still at a primitive level and at the mercy of the elements. Cultivation is so completely determined by the heavens or rainfall that there is no trace of evidence of a conquest of Nature, of subordinating its elements to the service of agriculture. As a result the following extract from a Resolution of the Governor General-in-Council of 18 January 1902, although it may sound diabolical in the reading, is only too true even today.

> The relation of cause and effect between a good rainfall, abundant crops, and agricultural prosperity, is not more obvious than is that between a bad monsoon, deficient produce, and a suffering people. When the vast majority of the inhabitants of a country are dependent upon an industry which is itself dependent upon the rainfall, it is clear that a failure of the latter must unfavourably, and in extreme cases calamitously, affect the entire agricultural community. The suspension of the rains means a suspension of labour ; the suspension of labour means a drying up of the means of subsistence, and the latter is necessarily followed by distress and destitution.

The diabolism of the above statement lies not so much in the callous and casual manner in which it is made as in the conscious falsification of history in which it indulges. Never before in history was India so abjectly dependent upon rainfall for her husbandry as after the middle of the eighteenth century. To quote again a nineteenth century economist:

> As in Egypt and India, inundations are used for fertilising the soil in Mesopotamia, Persia, etc. ; advantage is taken of a high level for feeding irrigative canals. This prime necessity of an economical and common use of water, which, in the Occident, drove private enterprise to voluntary association, as in Flanders and Italy, necessitated in the Orient, where civilisation was too low and the territorial extent too vast to call into life voluntary association, the interference of the centralising power of Government. Hence an economical function devolved upon all Asiatic Governments: the function of providing public works. This artificial fertilisation of the soil, dependent on a Central Government, and immediately decaying with the neglect of irrigation and drainage, explains the otherwise strange fact we now find: whole territories barren and desert that were once brilliantly cultivated, as Palmyra, Petra, the ruins of Yemen, and large provinces of Egypt, Persia, and Hindosthan ; it also explains how a single war of devastation has been able to depopulate a country for centuries, and to strip it of all its civilisation.

Now, the British in East India accepted from their predecessors the department of finance and of war, but they have neglected entirely that of public works. Hence the deterioration of an agriculture which is not capable of being conducted on the British principle of free competition, of *laissez faire* and *laissez aller*. But in Asiatic empires we are quite accustomed to see agriculture deteriorating under one government and reviving again under some other government. There the harvest corresponds to good or bad government, as they change in Europe with good or bad seasons.

106. The stock argument that has stood in the way of irrigational improvements in this State over the last one hundred and fifty years is that a country with 50 inches of rainfall does not need river irrigation. As a result, although other states of India, which were comparatively devoid of water, went ahead with irrigation programmes, this State was largely content with building embankments alongside rivers and preventing floods from damaging expensive capital installations, strategic communications and industrial investments. It is true that the nineteenth century hardly needed to worry about soil erosion, deforestation, and the need of comprehensive land management. But in this crowded country the problem of soil erosion was felt as early as the 1860's in the Damodar Valley and the Nadia rivers basin and Government engineers had already connected the problem of erosion with deforestation and disastrous floods as early as 1864. The concern that is felt all over the world now over nine inches of topsoil was felt as early as 1872 as the following passage taken from the Burdwan Fever Report of 1872 will show:

> There is no subsoil in this or the neighbouring districts in the sense in which the term is commonly used in England. Ten feet below the surface soil lies a bed of impermeable clay, which retains the water on its surface, and except in casual hollows, precludes accumulation as well as drainage below. It is the ten feet of surface soil spread over the deep beds of clay that renders Bengal habitable. Without the surface soil it would be a swamp, and without the clay it would be a desert (p. 58 of Report on the Burdwan Fever 1872).

107. The intensification of the problem of agriculture has probably occasioned a heavy bias towards soil conservation all over the world and it is probable that erosion is not such an avalanche that before one kicked a stone in the field that might touch off a series of chain reactions, one had rather keep one's foot suspended in mid-air and ask oneself "Do I dare disturb the universe?". The problem may not be as bad as all that but what fearful proportions soil erosion and repeated floods in the west and the north of this State have assumed in the course of the last several decades do not have to be recounted again. It has also to be borne in mind that were an integrated, efficient programme of land management, stemming of soil erosion and prevention of recurrent floods worked out, a great deal of land now under cultivation would probably go back under heavy timber, turf and pasture, and much compulsory fallowing. The immediate effect of it all would be a contraction in the area of cultivated land and displacement from employment of a large number of agriculturists. Also, in order to rejuvenate the western districts of the State afforestation would have to be undertaken still further west in the Chhotanagpur, Hazaribag, Ranchi, Manbhum and Santal Parganas in Bihar.

108. As short term work the Grow More Food Campaign, although it may have done very little by way of improved land management, prevention of erosion, and control of floods, has done a substantial lot in easing drainage by way of small irrigation schemes, in extending cultivation and in producing improved crops. At the same time, however, it may have reduced pasture lands and attacked jungles and forests where they should not have been attacked. The counter-balancing work of the Forest Department, which has done some really laudable work in

fighting deforestation, soil denudation and leeching in Midnapur, Bankura, Burdwan, Birbhum, Nadia, Murshidabad and Malda, by a vigorous application of the Private Forests Act, has been a great and worth while undertaking, and by the adoption of contour planting and contour irrigation that department has opened up new prospects of land management. The rarity of that category of practical worker with a sound theoretical grounding, the agronomist in this country, and the almost complete absence of a comprehensive soil survey will at once confirm how ill equipped the country is in its struggle with Nature. The following statements, borrowed from the Independence Anniversary Number of 1952 of West Bengal, summarise the work of the Grow More Food Campaign and render an account of food production in the State.

STATEMENT IV.32

Gains through Grow More Food Campaign and net gains or losses through exceptionally good and adverse weather conditions during 1948-52

(Figures for Partition year of 1947 are not available.)

(Figures of yield in thousand tons)

	1948	1949	1950	1951	1952 (provisional)
1 Gains through Grow More Food . .	12·0	31·1	33·6	94·8	174·4
2 Net gains (+) or losses (—) through abnormally good and bad weather conditions	—120	—170	+7	+162	—468
3 Total actual gross production of cereals .	3,521	3,350	3,696	4,039	3,583
4 What total production would have been if there were no net losses through bad weather conditions	3,641	3,520	3,696	4,039	4,051
5 Area reclaimed in acres—					
(i) By Government tractors . .	..	..	1,734	7,365	3,933
(ii) By irrigation and drainage projects of Agriculture Department	..	..	35,365	86,138	125,829
(iii) By Private enterprise . .	..	..	19,753	28,559	18,276
6 Reclaimed area put under paddy . .	..	..	39,979	84,298	121,167

STATEMENT IV.33

Production and procurement of food in West Bengal, 1947-52

(Figures of yield in thousand tons)

	1947	1948	1949	1950	1951	1952 (Provisional)
1 Gross local production of cereals						
(i) *Aman* . . .	3,147·6	3,041·6	2,882·8	3,269·5	3,559·0	3,103·3
(ii) *Aus* . . .	355·4	399·8	376·0	335·9	359·7	359·7
(iii) *Boro* . . .	16·6	9·4	16·3	16·1	15·5	15·5
(iv) Total rice . .	3,519·6	3,450·8	3,275·1	3,621·5	3,934·2	3,478·5
(v) Other cereals .	76·4	70·2	74·9	74·5	104·8	104·5
(vi) Total cereals .	3,596	3,521	3,350	3,696	4,039	3,583
2 Available for consumption after deducting 10 per cent. for seed and wastage	3,236	3,169	3,015	3,326	3,635	3,225
I Estimated total population (in lakhs)	219	224	232	246	248	250
II Quantity of cereals available *per capita* in maunds per year, if there was even distribution of internal production	4·02	3·85	3·54	3·68	3·99	3·51
Imports from outside						
(i) Rice . . .	56	89	98	18	32	..
(ii) Wheat including wheat products and barley, etc.	157	210	314	292	522	..
(iii) Total . . .	213	299	412	310	554	..

STATEMENT IV.33—concld.

(in thousand tons)

	1947	1948	1949	1950	1951	1952
Internal procurement	447	407	437	473	432	..
Government stocks at the beginning of the year	85	40	73	123	43	..
Offtake from Government stocks						
(i) Full-scale rationing	627	629	682	732	729	..
(ii) Modified rationing	55	67	103	135	170	..
(iii) Total	682	696	785	867	899	..
Average population under Rationing (in lakhs)						
(i) Full-scale rationing	60	58	61	63	71	..
(ii) Modified rationing	7	8	12	20	29	..
(iii) Total	67	66	73	83	100	..
Population under Modified Rationing (in lakhs)						
(i) In January	4·6	7·0	8·0	7·5	9·3	..
(ii) Peak (September-October)	9·5	13·0	17·1	42·1	52·6	..

109. There is another point which is worth noting in this connexion and that is the effect of extension of modified rationing with reference to the extension of jute cultivation. On the 14th September 1952 the Union Minister for Agriculture, Dr. Punjabrao S. Deshmukh, inaugurating the annual meeting of the Indian Central Jute Committee in Calcutta, expressed his satisfaction at the 'remarkable' progress that had been made to reach self-sufficiency in jute. Jute promises to have a prosperous market for some time yet, and the big price it still assures has already resulted in the turning over of large amounts of 'wet' rice land to 'Jute'. This transfer has been not a little helped by the operation of 'modified rationing'.

110. This is not to raise a needless alarm but the consequence of 'modified rationing' has already been regarded by some authorities as having a retarding effect on the application of that 'extra bit' for increased cultivation necessary for extra yield. It has also been responsible for a large changeover to jute. At the present time jute burlap stands in serious competition with stout paper and plastic bags and the present trends of packing and haulage in Europe and especially in the two Americas which are the largest buyers of jute seem to be for reducing the handling of large and heavy gunny bags. Burlap is scarcely economical or profitable except as containers of more than 100 lbs. Besides, it is a messy and intractable thing. On the other hand, owing to the increasing shortage of domestic help, the trade, anxious to help the housewife and reduce handling costs, more and more insists on grading and packing in small neat paper-packages right at the farm, before the stuff is sent out to the stores. All that the stores will have then to do is to put the ounce or pound package into the housewife's shopping bag, instead of hauling, opening and weighing grocery, packing it again by hand and handing it to her, which makes for such a waste of time. This modern trend in packing in small units and then shipping them in big wooden or metal cases,—the way in which bottles in the wine and liquor trade largely replaced casks and pipes—is a serious menace to burlap and may well limit the demand of jute to a comparatively inelastic figure for all time. Bengal has already seen the total disappearance of indigo cultivation in the brief space of twenty years, and the State now stands on the threshold of a fall in the demand of another valuable cash crop, the market of which has already come to be contingent on the existence of a war or a threat of war. In the next place jute unfortunately is no more grown *only* in India. India's monopoly

in jute growing has been broken by Burma and South America. Apparently, the major factor that kept jute growing a monopoly confined only to India was neither the soil nor the rainfall but the painful labour involved in 'retting' and washing the jute fibre which no one except an Indian peasant would willingly undertake. It seems that as soon as a more 'civilised' method of 'retting' and washing jute is devised, India will lose her monopoly of production. What will happen to West Bengal's agriculture if jute goes tomorrow is a problem which must engage the most serious attentions not only of the trade but of the highest authorities in the land.

111. Little remains to dispute the uneconomic nature of holdings in West Bengal. It has been shown in Statements IV.21 and 22 that in the course of 11 years between 1940 and 1951 there has been a further noticeable deterioration in the average cultivated area per agricultural family from 5·17 acres to 4·82 acres and that the percentage of families holding 2 acres or less is 34·5 and the percentage of holdings between 2 and 4 acres is 27·6. The latter marks a progress of 7·3 per cent. over the figures deduced by the Land Revenue Commission for all Bengal in 1940, suggesting impoverishment of a higher land group on account of the Famine of 1943. Leaving aside sample surveys and reckoning the total amount of land available with the number of agricultural families, the following statement shows the average cultivated area of land that can go round for the present agricultural population.

STATEMENT IV.34

Estimated average cultivated land, 1951

State and District	Net cultivated area per self-supporting person of owner cultivators (L.C.I.)	Net cultivated area per self-supporting persons of Livelihood Classes I to III combined	Area under rice per self-supporting person of L.C.I.	Area under rice per self-supporting person of Livelihood Classes I to III combined	Net cultivated area per head of all agricultural population (Classes I to IV)
West Bengal	**5·7**	**2·9**	**5·4**	**2·7**	**0·75**
Burdwan Division	*5·4*	*2·8*	*5·4*	*2·7*	*0·75*
Burdwan	6·4	2·9	6·2	2·8	0·82
Birbhum	6·5	3·0	7·1	3·3	0·84
Bankura	5·3	2·8	5·4	2·9	0·74
Midnapur	5·2	2·9	5·1	2·9	0·79
Hooghly	4·7	2·2	4·0	1·9	0·61
Howrah	4·0	1·6	4·1	1·7	0·41
Presidency Division	*6·1*	*3·2*	*5·4*	*2·8*	*0·76*
24-Parganas	4·6	2·2	4·5	2·2	0·54
Nadia	5·9	3·3	5·2	3·0	0·85
Murshidabad	4·6	2·6	4·3	2·4	0·61
Malda	6·8	3·7	5·7	3·1	0·77
West Dinajpur	6·7	3·7	7·0	3·8	0·89
Jalpaiguri	11·8	4·9	8·8	3·7	1·31
Darjeeling	10·8	6·4	3·1	1·9	1·43
Cooch Behar	8·4	4·7	7·2	4·0	1·25

112. This and Subsidiary Table IV.9 printed in Part IC of this Report shows the extent of agricultural overcrowding in the State. The Land Revenue Commission held that a minimum of 8 acres was required for an economic holding in West Bengal, but if 5 acres were to be stipulated, 2 or 3 acres must consist of 'wet' land. The Commission concluded that "the total requirement of land must exceed the cultivated area" (Vol. I, p. 86) and that "the fundamental reason for the difficulties of the rural population in Bengal is that there is not enough land to go round" (Vol. 1, p. 74).

113. If, as it must have been apparent on a simple rule of three to everybody as early as 1872 when W. W. Hunter made his famous pronouncement in one of his first Statistical Accounts that 'a husbandman cultivating 5 acres of land would not be as well off as a shopkeeper earning 16*s*. or Rs. 8 a month', there should have been a determined effort on the part of every Government to divert large sections of Bengal's population from agriculture to industry. Instead, more and more population, and more and more handicraftsmen, have been thrown back on the soil. In every stage in Bengal's history conquerors have striven to break in Bengal's rebellious spirit—Bulga Khana, or "home of revolt" as the horrified Abul-Fazl, Akbar's historian, called Bengal—by turning it away from manufacture and industry and harnessing it to peaceful agriculture. That part which now constitutes West Bengal has never at any time in history been particularly prosperous in agriculture and its strength has lain in industry and manufactures, in the formation of guilds and banking houses. But no effort has been so successful as the Permanent Settlement in its object of weaning the State from its addiction to manufacture and industry and sending it to soporific contentment in agriculture. The changeover caught on with the collection of illegal rents and payment of extortionate State revenues, while the indigenous industries were systematically wiped away.

114. It is this helplessness in finding alternative employment for the population displaced from economic and profitable pursuit of agriculture, in finding employment in industry and manufacture of the surplus agricultural population that must be held the reason for (i) staying the hands of the Government in changing the laws of inheritance to prevent subinfeudation and fragmentation of holdings, and (ii) actuating the Government in debarring bargadars from being recognised as tenants in the Tenancy Act of 1928. A great deal of argument in favour of a preventive law for the first will be found in the Land Revenue Commission's Report, from which ultimately the Commission backed out on the plea of impracticability of finding alternative employment. As for the second item, the Commission held that the debarring of bargadars was a retrograde measure and led to commercialisation of land and suggested that "John Kerr's bill should be restored". But it added: "when Sir John Kerr's Committee proposed to give occupancy rights to a certain class of bargadars, an agitation followed, mainly among the middle classes, which led to the issue by Government of a communique stating that the proposal would not be carried into effect. It is maintained that any proposal to take away from the middle classes their vested interests in land would lead to even greater opposition". Following the Commission's remark, it may be said that even the West Bengal Bargadars Act of 1950 was found wanting at least inasmuch as it fell short of conferring a real right on the sharecropper.

115. But all this has been the effect of the lack of new and even contraction of available alternative employment, as a result of which there has been more and more cheese-paring on land until a stage has been reached when the Land Revenue Commission remarked that "the Zemindari system has developed so many defects that it has ceased to serve any national interest. No half measures will satisfactorily remedy its defects. Provided that a practicable scheme can be devised to acquire the interests of all classes of rent receivers on reasonable terms, the policy should be to aim at bringing the actual cultivators into the position of tenants holding directly under Government".

116. This Report is not the place for suggesting just 'another panacea' for the evils of the state of agriculture in

West Bengal but it seems that if the slightest improvement were to be achieved in agricultural production, consolidation of holdings would have to be the first item on the agenda. A large body of official and private opinion has held that consolidation is practicable and comparatively inexpensive. Two very authoritative opinions on the imperative need and practicability of consolidation, and the cheapness with which it may be completed district by district are available in the Settlement Report of Nadia by J. M. Pringle and A. H. Kemm and the Settlement Reports of Birbhum and Murshidabad by B. B. Mukharji. Unless consolidation can be effected all efforts at improvement like better seeds, better implements and better irrigation will run as through a sieve and not even elementary mechanisation would be possible. Even holdings of 5 acres could reap the advantage of machines because farming machines need not necessarily be contemplated in terms of tractors or large combines: small machines would be quite possible to be shared by a whole community in a village.

117. The next thing would be to prevent subinfeudation by changing the laws of inheritance and to divert all surplus of population to industry. It is extremely important to appreciate that agriculture in West Bengal can improve only when a large population is diverted to industry and manufacture. So that West Bengal's agriculture may thrive there must be less pressure on the soil and it is only by deliberately choosing the path of industry and manufacture that the State's agriculture can be saved from total ruin.

118. All this presupposes a greater degree of mechanisation on the farm but it is important to remember that the private ambitions of the improverished ryot, the bargadar and the landless agricultural labourer to possess a piece of land to call his own must first be fulfilled before large scale farms—co-operative or corporations—can be introduced. But this fulfilment of land hunger is not incompatible with increased yield and improved agriculture, provided there is consolidation of holdings and no subinfeudation, as has been proved in Japan and recently with such speed and success in China.

119. Bernier in the 17th century extolled the fruit and sugar cultivation of Bengal and praised its citrons and fruit preserves. Consistent with schemes of afforestation, soil conservation, and pasture it should be possible to grow more fruit farms and engage a sizeable proportion of the population in the fresh fruit, preserves and canning trades.

120. In every country agriculture is 'a way of life', so much so that agriculturists will carry on for as long as they can even at a loss in the tenacious belief that though profits may dwindle a useful form of human enterprise does not pass away so quickly. But it does not do to lose the battle with Nature and an extensive corps of agronomists is a *desideratum* seriously to be regretted and filled up as a main plank in the platform of land reforms.

121. The 19th century settlement reports, like those of Maddox on Orissa. lamented that an entirely foreign agrarian economy should have been imposed on a country where a different system had prevailed. Jack and Jameson, the settlement officers of Bakarganj and Midnapur—the great agricultural districts of Bengal—echoed this view even in the second decade of this country. But such is the power of a foreign grafting that in a century and a half, the lone peasant's idea of private ownership of land has struck very strong roots, aided by the hunger of a vast horde of landless, sold-out labourers ; so much so that co-operative ownership of land will be as odious in India as it has been in Japan or China, where it has been thrown overboard—even if only for the time being—by the New Democracy. The movement for co-operative ownership of land may not

succeed at the present hour. But cooperative production on each other's private land, and ownership of the means of production (tools, tractors, bullocks, harrows, ploughs, manure pits, seed silos, grain loan silos) are not foreign to our genius; this works very actively as "Chanta ganta" in times of acute scarcity and poverty, as it did in 1943-44.

122. But before that can be acceptable the peasant wants to be certain that his plot of land is really his, the landless labourer that he has a plot of land to call his own, before he can allow an intruder—as a friend—to help him get more out of his land. That is the crux of the matter. If the peasant, by improving his output with the help of better instruments, manure, seed, bullock, etc., (and Japan has proved that even a holding of 3 acres can achieve a great deal) which he will receive from his cooperative, can lay by an investible surplus (which will be saved from being sponged upon by rack-rents), the fruits of which he may enjoy, then only can he be persuaded to limit or plan his family voluntarily so that he may see a purpose in life and may more fully enjoy the fruits of this surplus. It is that way that the population problem can be solved and the death wish expressed in the despair of reckless reproduction transmuted into a desire for an ordered and better life limiting reproduction.

123. It is difficult to conclude this chapter abruptly, but it is obvious that the picture that emerges from the analysis is so depressing that one's mind likes to dwell on the way out until one discovers to one's dismay that 'just another panacea' which one is anxious to disavow is about to raise its head. As the next chapter will show, any endeavour or plan which attempts to improve the agricultural scene alone is bound to come to grief. Any improvement in the field of agriculture must be contingent on improvement in all other spheres of life, else the level of improvement cannot be sustained but must inevitably slide back. It is possible to conclude with the slick observation that as soon as agriculture begins to produce an investible surplus, it will carry a beneficent impulse to industry and commerce and supply them with the necessary compelling power. For, undoubtedly in our country the agrarian question is still the root of the matter. But the solution of this question must radiate towards, draw its sustenance from, and embrace all spheres of activity at once and not presume to achieve much by making progress in one or several watertight directions only. That, as the next chapter will confirm, is the crux of the matter and as such it would be idle to think of measures to improve agriculture alone without thinking of simultaneous and interlocking improvement in all other spheres. It thus resolves into a matter of simultaneous adjustment in all directions and all planes, which alone is capable of extinguishing the antithesis between town and country and bringing about a mutually supporting relationship between the exploiting town and the exploited village.

INDUSTRIES IN RURAL AREAS OF WEST BENGAL, 1951

(Compiled from the tables of the census of small scale industries)

Names of Cottage Industries (Employing less than ten persons each on one establishment) 1	Obtaining in districts 2
Manufacture of Aerated water	Burdwan, Bankura, Howrah, 24-Parganas.
„ „ Agarbati (incense sticks)	24-Parganas.
„ „ Agricultural implements	Burdwan, Bankura, Midnapur, Hooghly, 24-Parganas.
„ „ Bamboo fences	Hooghly.
„ „ Bamboo baskets	24-Parganas, Murshidabad, Malda, West Dinajpur.
„ „ Bamboo products	Burdwan, Birbhum, Bankura, Midnapur, Howrah, 24-Parganas, Jalpaiguri.
„ „ Baskets	Bankura, Midnapur, Hooghly.
„ „ Biri	Burdwan, Birbhum, Bankura, Midnapur, Hooghly, Howrah, 24-Parganas, Nadia, Murshidabad, Malda, West Dinajpur, Jalpaiguri.
Blacksmith shop	Burdwan, Birbhum, Bankura, Midnapur, Hooghly, Howrah, 24-Parganas, Nadia, Murshidabad, West Dinajpur, Jalpaiguri.
Manufacture of Boats	Murshidabad.
Book Binding	Midnapur.
Manufacture of Brass and Bell metal ware	Burdwan, Birbhum, Bankura, Midnapur, Hooghly, Howrah, 24-Parganas, Nadia, Murshidabad, West Dinajpur, Jalpaiguri.
„ „ Brass Locks and Keys	Howrah.
„ „ Bread and Biscuit	Birbhum, Bankura, Midnapur, Hooghly, Howrah, 24-Parganas, Nadia, Murshidabad, West Dinajpur.
„ „ Bricks	Burdwan, Bankura, Midnapur, Hooghly, Howrah, 24-Parganas, Murshidabad.
„ „ Broomsticks	Howrah, 24-Parganas.
„ „ Butter	Nadia.
„ „ Brushes	Howrah.
„ „ Candles	Jalpaiguri.
„ „ Cane baskets	Midnapur, Murshidabad, Malda, Jalpaiguri.
„ „ Cane articles	Howrah, 24-Parganas.
Carpentry shop	Burdwan, Birbhum, Bankura, Midnapur, Hooghly, Howrah, 24-Parganas, Nadia, Murshidabad, Malda, West Dinajpur, Jalpaiguri.
Manufacture of Cart-wheels	Burdwan, Birbhum, Bankura, Midnapur, Hooghly, 24-Parganas, Nadia, Murshidabad, Jalpaiguri.
„ „ Chira	Bankura, Hooghly.
Cloth printing	24-Parganas.
Cloth dyeing	Howrah.
Manufacture of Combs	Midnapur, Howrah.
„ „ Conchshell-articles	Burdwan, Bankura, Midnapur, Howrah, Murshidabad, Jalpaiguri.
Confectionery shop	Hooghly.
Manufacture of Copper ware	Birbhum, Bankura, Midnapur, Nadia, Murshidabad, West Dinajpur, Jalpaiguri.
Cotton spinning, sizing and weaving	Burdwan, Birbhum, Bankura, Midnapur, Hooghly, Howrah, 24-Parganas, Nadia, Murshidabad, Malda, West Dinajpur, Jalpaiguri.
Cotton dyeing, bleaching, printing, preparing and sponging	24-Parganas.

INDUSTRIES IN RURAL AREAS OF WEST BENGAL, 1951—contd.

Names of Cottage Industries (Employing less than ten persons each on one establishment). 1	Obtaining in districts 2
Cutlery	Bankura, 24-Parganas.
Cycle repairing	Burdwan, Birbhum, Bankura, Midnapur, Hooghly, Howrah, 24-Parganas, Nadia, Murshidabad, Malda, West Dinajpur, Jalpaiguri.
Manufacture of Dhupkatis (incense sticks)	Hooghly, Howrah.
„ „ Dolls	Howrah.
„ „ Earthentubs	Malda.
„ „ Earthenware (pottery)	Burdwan, Birbhum, Bankura, Midnapur, Hooghly, Howrah, 24-Parganas, Nadia, Murshidabad, West Dinajpur, Jalpaiguri.
„ „ Electric-lamps	Midnapur.
„ „ Embroidered cloths	Howrah, 24-Parganas.
„ „ Electric-parts	Howrah.
„ „ Fans (from palm leaves)	Hooghly, 24-Parganas.
„ „ Firewood	Hooghly.
„ „ Fireworks	Burdwan, Hooghly.
„ „ Fishing-rods	24-Parganas.
„ „ Fishing-implements	Burdwan, Bankura, Hooghly, Howrah.
Flour grinding	Burdwan, Hooghly, Howrah, 24-Parganas.
Manufacture of Furniture	Burdwan, Midnapur, Hooghly, Howrah, 24-Parganas, Nadia, West Dinajpur, Jalpaiguri.
„ „ Ghee	Midnapur, Nadia.
„ „ Gold and Silver-ornaments	Burdwan, Birbhum, Bankura, Midnapur, Hooghly, Howrah, 24-Parganas, Nadia, Murshidabad, West Dinajpur, Jalpaiguri.
„ „ Glass	Hooghly.
„ Glass-bottles	24-Parganas.
„ „ Glass-bangles	Bankura.
„ „ Glass-products	24-Parganas.
„ „ Gur	Burdwan, Bankura, Hooghly.
„ „ Leaf hats	Hooghly.
Haycutting	24-Parganas.
Hemp and flax-spinning and weaving	Hooghly.
Manufacture of Hogla-articles	24-Parganas.
„ „ Horn-products	Hooghly.
„ „ Hosiery-goods	Burdwan, Hooghly.
„ „ Ice	Midnapur, Jalpaiguri.
„ „ Ice-cream	Hooghly.
„ „ Idols	Malda.
„ „ Images	Hooghly, Howrah.
„ „ Ink	24-Parganas.
Jute-pressing, baling, spinning and weaving	West Dinajpur.
Manufacture of Kites	24-Parganas.
„ „ Leather-products	24-Parganas.
„ „ Leather	Birbhum.
Lime burning	Burdwan, Nadia.
Manufacture of Lime	Howrah.
„ „ Lock and Key	Bankura, Hooghly, 24-Parganas.
„ „ Looking-glasses	24-Parganas.
„ „ Looms and Bobbins	Nadia.
„ „ Lozenges	Howrah.
„ „ Machinery-parts	Howrah, 24-Parganas.
„ „ Rope, twine, string and other related goods from cocoanut, aloes, straw, linseed and hair	Hooghly, 24-Parganas.

INDUSTRIES IN RURAL AREAS OF WEST BENGAL, 1951—contd.

Names of Cottage Industries (Employing less than ten persons each on one establishment). 1	Obtaining in districts 2
Manufacture of Mats	Burdwan, Bankura, Midnapur, Howrah, Murshidabad.
„ „ Mats (Hogla mats)	Howrah.
„ „ Medicine	24-Parganas.
Motor-car repairing	24-Parganas, Jalpaiguri.
Manufacture of Musical-instruments	Burdwan, Bankura, Midnapur, Hooghly, 24-Parganas, West Dinajpur, Jalpaiguri.
„ „ Neem-oil	West Dinajpur.
„ „ Nets	Howrah, Murshidabad.
„ „ Oils	Burdwan, Birbhum, Bankura, Midnapur, Howrah, 24-Parganas, Nadia, Murshidabad, West Dinajpur, Jalpaiguri.
Paddy dehusking	Burdwan, Bankura, Hooghly, Howrah, 24-Parganas, Nadia.
Paddy dehusking (Milling)	Burdwan, Bankura, Midnapur, Hooghly, Jalpaiguri.
Manufacture of Paper-boxes	Hooghly.
„ „ Paper-bags	24-Parganas.
„ „ Paper-products	24-Parganas.
„ „ Paper	Howrah.
„ „ Perfumes	24-Parganas.
„ „ Plastic-articles	Howrah, 24-Parganas.
„ „ Polish	Hooghly.
„ „ Polo-ball	Howrah.
„ „ Picture-frames	24-Parganas.
Printing	Bankura, Hooghly, Murshidabad.
Manufacture of Rickshaws	Hooghly.
Sawing	Howrah, 24-Parganas.
Shoemaking and repairing	Burdwan, Birbhum, Bankura, Midnapur, Hooghly, Howrah, 24-Parganas, Nadia, Murshidabad, Malda, West Dinajpur, Jalpaiguri.
Manufacture of Shola-articles	Burdwan, Bankura, Midnapur, Hooghly, Howrah, Nadia, Murshidabad.
„ „ Silk-embroideries	24-Parganas.
Silkworm rearing	Bankura, Midnapur, 24-Parganas, Murshidabad.
Silk reeling, spinning and weaving	Burdwan, Birbhum, Bankura, Hooghly, 24-Parganas, Nadia, Murshidabad, Malda, Jalpaiguri.
Manufacture of Sitalpati (fine mat)	Nadia.
„ „ Soap	24-Parganas, Nadia, West Dinajpur, Jalpaiguri.
„ „ Steel-trunks and suitcases	24-Parganas, West Dinajpur.
„ „ Stone-utensils	Bankura.
„ „ Straw-ropes	24-Parganas.
„ „ Sugar-candy	Hooghly.
„ „ Sweetmeats	Bankura, Hooghly, Murshidabad.
Tailoring	Burdwan, Birbhum, Bankura, Midnapur, Hooghly, Howrah, 24-Parganas, Nadia, Murshidabad, West Dinajpur, Malda.
Tanning	24-Parganas, Malda.
Manufacture of Tari (toddy)	Hooghly.
„ „ Tiles	Burdwan, Bankura, Midnapur, Hooghly, Howrah, 24-Parganas, Murshidabad.
Tinsmith's shops	Hooghly, Howrah, 24-Parganas, Nadia, West Dinajpur.
Manufacture of Tobacco-preparations	Hooghly.

INDUSTRIES IN RURAL AREAS OF WEST BENGAL, 1951—concld.

Names of Cottage Industries (Employing less than ten persons each on one establishment). 1	Obtaining in districts 2
Manufacture of Toilet-articles	24-Parganas, Jalpaiguri.
,, ,, Toys	Midnapur, Hooghly, Howrah, 24-Parganas.
,, ,, Umbrella	Hooghly.
Umbrella repairing	Burdwan.
Manufacture of Umbrella-sticks	24-Parganas.
,, ,, Washing-soaps	Howrah, 24-Parganas.
Watch repairing	Bankura, 24-Parganas, Jalpaiguri.
Welding and repairing	Hooghly.
Wheat grinding (Milling)	Burdwan.
Manufacture of Wire-products	24-Parganas.
,, ,, Woody-materials	Howrah.
Woollen spinning	Burdwan, Birbhum, Nadia, Murshidabad Malda.
Manufacture of Woollen-garments	24-Parganas.

CHAPTER V

NON-AGRICULTURAL CLASSES

SECTION 1

PRELIMINARY REMARKS

THE STATISTICS discussed in this chapter are contained in Union Tables A V, E, B I, B II, B III, C II and DVII printed in the Tables Volume of this Report. In addition the following subsidiary tables printed in Part IC of this Report further analyse the data of the Union Tables:

V. 1—Non-Agricultural Classes per 1,000 persons of General Population; number in each class and subclass of 10,000 persons of all Non-Agricultural Classes; and number of employers, employees and independent workers per 10,000 self-supporting persons of all Non-Agritural Classes.

V. 2—Number per 10,000 persons of Livelihood Class V in each subclass; number per 10,000 self-supporting persons of Livelihood Class V who are employers, employees and independent workers; Secondary Means of Livelihood of 10,000 persons of Livelihood Class V.

V. 3—Number per 10,000 persons of Livelihood Class VI in each subclass; number per 10,000 self-supporting persons of Livelihood Class VI who are employers, employees and independent workers; Secondary Means of Livelihood of 10,000 persons of Livelihood Class VI.

V. 4—Number per 10,000 persons of Livelihood Class VII in each subclass; number per 10,000 self-supporting persons of Livelihood Class VII who are employers, employees and independent workers; Secondary Means of Livelihood of 10,000 persons of Livelihood Class VII.

V. 5—Number per 10,000 persons of Livelihood Class VIII in each subclass; number per 10,000 self-supporting persons of Livelihood Class VIII who are employers, employees and independent workers; Secondary Means of Livelihood of 10,000 persons of Livelihood Class VIII.

V. 6—Comparison of the Classification of the Population by Livelihood Classes at the 1951 and 1931 Censuses.

V. 7—Territorial distribution of 10,000 self-supporting persons of all Industries and Services in the State (by Divisions).

V. 8—Territorial distribution of 10,000 self-supporting persons in the State engaged in Primary Industries not elsewhere specified (by Subdivisions).

V. 9—Territorial distribution of 10,000 self-supporting persons in the State engaged in Mining and Quarrying (by Subdivisions).

V. 10—Territorial distribution of 10,000 self-supporting persons in the State engaged in Processing and Manufacture—Foodstuffs, Textiles, Leather and Products thereof (by Subdivisions).

V. 11—Territorial distribution of 10,000 self-supporting persons in the State engaged in Processing and Manufacture—Metals, Chemicals, and Products thereof (by Subdivisions).

V. 12—Territorial distribution of 10,000 self-supporting persons in the State engaged in Processing and Manufacture not elsewhere specified (by Subdivisions).

V. 13—Territorial distribution of 10,000 self-supporting persons in the State engaged in Construction and Utilities (by Subdivisions).

V. 14—Territorial distribution of 10,000 self-supporting persons in the State engaged in Commerce (by Subdivisions).

V. 15—Territorial distribution of 10,000 self-supporting persons in the State engaged in Transport, Storage, and Communications (by Subdivisions).

V. 16—Territorial distribution of 10,000 self-supporting persons in the State engaged in Health, Education and Public Administration (by Subdivisions).

V. 17—Territorial distribution of 10,000 self-supporting persons in the State engaged in Services not elsewhere specified (by Subdivisions).

2. As tables tell their own story very clearly it is unnecessary to paraphrase their figures over again. Contrary to past practice, therefore, this chapter will refrain from a wordy repetition of the tables, except where special notice seems called for of any feature of very particular interest.

SECTION 2

THE ECONOMIC CLASSIFICATION

3. A fairly detailed account of the livelihood pattern of the non-agricultural classes in rural and urban areas has been given in Section 6 of Chapter I and in Chapters II and III. A full account of the new Indian Census Economic Classification Scheme adopted in 1951 will be found in Section 6 of Chapter I. The gaps in the new Scheme and the problems arising out of its application have also been mentioned in that section.

4. It may be interesting to compare the economic classification schemes prevailing in successive censuses beginning with the first one in 1872. Such a comparison will illustrate how non-agricultural occupations have increased in variety and complexity in the course of eighty years. It will also reflect changes in emphasis laid by Government on particular groups of pursuits in successive decades. Statement V.1 printed at the end of this Chapter provides such a comparative account. The Classification Scheme of 1951 has been adopted as the reference with regard to which those of previous years have been adjusted and regrouped, while the code numbers of each year, kept unchanged, furnish a clue to the order of grouping prevailing in that particular year. A blank for any particular year against a subdivision of 1951 signifies the absence of a similar occupational breakdown for that year.

5. A closer comparison between the 1951 and 1931 Schemes is desirable for bringing out the departures and regroupings made in 1951. The following account is therefore quoted from the title pages of Union Table B III in the Tables Volume for West Bengal, 1951; it compares the non-agricultural occupational classes in 1951 and 1931, the Divisions and Subdivisions of 1951 with Subclasses and Orders of 1931, and occupational Groups in 1951 and 1931.

6. The present system of classification is different from that in 1931 and previous censuses. All the four main classes, twelve subclasses, fiftyfive orders and one hundred and ninetyfive groups of 1931 have been recast under four main classes, ten divisions, eightyeight subdivisions, and one hundred and sixtythree groups (115 in class V, 11 in class VI, *nil* in class VII and 37 in class VIII). The result is a reduction and rearrangement in the number of Subclasses of 1931 (corresponding to Divisions in 1951), an increase from the number of Orders from 55 in 1931 to 88 Subdivisions in 1951, and a rearrangement and decrease from 195 Groups in 1931 to 163 in 1951. The list below gives in detail the rearrangement in each category:

CLASSES

1951	1931
V Production other than Agriculture (Divisions 0 and 1 only)	A Production of Raw Materials
Divisions 2 to 4 of Class V; 5 to 7 of Class VIII; VI Commerce; VII Transport	B Trade
VIII Divisions 8 and 9 of Class VIII (except Subdivisions 9·0 and 9·1).	C Public Administration and Liberal Arsts
Subdivisions 9·0 and 9·1 of Division 9 of Class VIII	D Miscellaneous

DIVISIONS AND SUBDIVISIONS SUBCLASSES AND ORDERS

1951	1931
Divisions and Subdivisions	Subclasses and Orders
0 (0·1 to 0·6)	I 1 (*a*), (*b*), (*c*), (*d*), (*e*), 2
1 (1·0 to 1·7)	II 3 and 4
2 (2·0 to 2·9)	III 5, 6, 11, part of 12
3 (3·0 to 3·8)	III 8, 10, 15
4 (4·0 to 4·9)	III 9, 12, 13, part of 14, 17
5 (5·0 to 5·7)	III part of 14, 16 IV 22
6 (6·0 to 6·8)	V 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39

ECONOMIC CLASSIFICATION SCHEMES OF 1931 AND 1951

OCCUPATIONAL GROUPS—contd.

DIVISIONS AND SUBDIVISIONS SUBCLASSES AND ORDERS

1951 Divisions and Subdivisions	1931 Subclasses and Orders
7 (7·0 to 7·9)	IV 18, 19, 20, 21, 22
8 (8·1 to 8·9)	VI 40, 41, 42, 43
	VII 44
	VIII 47, 48
9 (9·0 to 9·8)	VIII 45, 46, 49
	IX 50
	X 51
	XI 52
	XII 53, 54, 55

7. Thirtythree new subdivisions have been created in 1951 all but five of which have been necessitated by the growth of industry, manufacture and services. These are 0.6, 1.2, 1.4, 1.5, 1.6, 1.7, 2.1, 2.2, 2.3, 2.5, 2.8, 2.9, 3.2, 3.4, 3.5, 3.6, 3.7, 4.0, 4.1, 4.3, 4.5, 4.8, 4.9, 5.0, 5.3, 5.4, 5.6, 5.7, 6.2, 6.6, 6.7, 7.0, 8.9. A number of the other fiftyfive have been rearranged.

8. While the majority of groups are common to 1951 and 1931, the only difference being their rearrangement under subdivisions and orders, the following thirtynine groups are new for 1951, having no corresponding groups in 1931: 2.01, 2.02, 2.12, 2.22, 2.23, 2.51, 2.70, 2.84, 2.85, 2.90, 3.30, 3.40, 3.41, 3.42, 3.43, 3.61, 3.63, 3.64, 3.65, 3.82, 3.83, 3.84, 3.86, 3.87, 4.02, 4.06, 4.07, 4.08, 4.10, 4.11, 4.12, 4.43, 4.44, 4.63, 6.03, 6.15, 8.10, 8.22, 9.83. Almost all these groups have been necessitated by the growth of new industries and services during the twenty-year period 1931-51, demanding specific differentiation of employment in industry and services. On the other hand the following thirty groups of 1931 are not differentiated in 1951 by the allotment of separate group numbers—75, 79, 80, 119, 120, 121, 122, 123, 125, 138, 139, 140, 141, 142, 143, 144, 146, 147, 149, 152, 180, 181, 182, 185, 188, 190, 191, 192, 193, 194: they represent mostly various aspects of trade, miscellaneous and unproductive services. The following is a comparative statement of groups in 1951 and 1931.

1951	1931
L. C. I	5
L. C. II	6, 8
L. C. III	7
IV	1, 2, 3, 4
0.1	A-I 1(d)
0.10	23, 22
0.11	23
0.12	21
0.2	A-I 1(e)
0.20, 0.21, 0.22	24
0.23	25
0.24	26
0.3	A-I 1(b)
0.30	9, 10, 12, 13, 16
0.31	15
0.32	11
0.33	14
0.4	A-I 1(c)
0.40	17
0.41, 0.43	18
0.42	19, 20
0.5, 0.6	A-I 2
0.5	28
0.6, 0.60, 0.61, 0.62	27
1.0	39, 41
1.1	35
1.2	30
1.3	A-II 3
1.30	34
1.31	29
1.32	31
1.33	32
1.34	33
1.4	36
1.5	37
1.6	38
1.7	40
2.0, 2.00, 2.1, 2.10	81
2.11	71
2.13	72
2.21	68
2.3	B-III 11
2.30, 2.31	74
2.4	B-III 10 and 11
2.40, 2.43	67
2.41	77
2.42	76
2.5, 2.50	78
2.6	B-III 5
2.61	42
2.62	43
2.63	49
2.7	B-III 12
2.71	83
2.72	50

COMPARISON OF OCCUPATIONAL GROUPS 1931 AND 1951

OCCUPATIONAL GROUPS—concld.

1951	1931
2.74	84
2.75, 2.76	89
2.80	50
2.81	44
2.82	46
2.83	47
2.86,	45, 48
2.91	51
2.92	82
3.0	8
3.01	59
3.02	60
3.03	61
3.04	97
3.05	62
3.06	58
3.1, 3.2	57
3.3	B-III 15
3.31, 3.33	93
3.32	91
3.34	92
3.62, 3.85	66
3.8	B-III 10
3.80	70
3.81	87
4.00	53
4.01, 4.03	97
4.04	98
4.09	99
4.11	69
4.2	64
4.4	B-III 9
4.40	90
4.41	63
4.42	65
4.6	B-III 7
4.60, 4.64	56
4.61	54
4.62	55
4.7	B-III 13, 88
4.91, 4.92	95
5.10, 5.11, 5.12, 5.13	90
5.2	105, 106
5.5	B-III 16
5.51, 5.52	94
6.00	150
6.01	151
6.02	125
6.03	148
6.1, 6.11, 6.4	129, 130, 131, 132, 133, 134

1951	1931
6.12	126
6.13, 6.14	135, 136, 137
6.20	145
6.21	125
6.3	117, 117A, 118, 138
6.4	129, 130, 131, 132, 133, 134 135, 136, 137
6.5	119, 120, 121, 122, 123, 124
6.8	115, 116
7.1	107, 108, 109, 110, 111
7.2	102, 102A, 103, 104
7.3	101
7.4	112, 113
8.1	C-VIII 47
8.11	169
8.12	170
8.13	171
8.14, 8.15, 8.16, 8.17	172
8.2	C-VIII 48
8.20	175
8.21	174, 180
8.31	153, 154
8.32	155
8.33	156
8.4	157
8.5	158, 162
8.6	161
8.7	159
8.8, 8.9	160
9.0	181, 188, 189, 190, 191, 192, 193, 194, 195
9.1	D-X 51
9.10, 9.12, 9.13	187
9.11	186
9.2	86, 87
9.3	85
9.4	127
9.5	182, 183, 184
9.61	167
9.62	168
9.63	177
9.64	176
9.65	180
9.7	C-VIII 49
9.71	179
9.72	178
9.8	C-VIII 45
9.81	163, 164, 165
9.82	166

SECTION 3

THE STATISTICS

9. Union tables A V, E, B Series, C II and D VII give an account of the entire population of the State, both agricultural and non-agricultural, classify the population into one or another of the eight broad livelihood classes, further classify them by age groups and literacy standards under each livelihood class, and render an account of self-supporting persons, earning and non-earning dependants, and employers, employees and independent workers. Union table B I divides the population engaged in non-agricultural livelihoods into self-supporting persons, earning dependants and non-earning dependants. Union table B II renders an account of the secondary means of livelihood of those self-supporting persons who have one, and of the source of income of earning dependants. Union table B III classifies self-supporting persons engaged in non-agricultural livelihoods into employers, employees and independent workers under each subdivision of the Indian Census Economic Classification Scheme.

10. It will be interesting to find out whether there has been both an absolute and a relative increase or decrease in employment in industries and services, and whether this increase or decrease has outstripped, kept pace with, or fallen short of the increase in population. Statement V. 2 has been prepared with this end in view. The economic classifications of previous censuses have been rearranged for comparison in Statement V.1 in terms of the new ICEC scheme. The term 'self-supporting person' of 1951 has been equated to 'actual workers' of previous years. In the next place since important industrial occupations are comparatively few in these districts which were partitioned in 1947 and as the areas of partitioned districts that have gone over to East Bengal are small compared to the area of West Bengal, the figures for the affected districts have been taken in respect of their pre-partition boundaries. While such an accounting may have inflated the figures of previous decades by an odd hundred here and there, it was considered safer to do so instead of taking other arbitrary decisions. In spite of these qualifications Statement V.2 will be of great interest to the student of West Bengal's population.

STATEMENT

Non-agricultural self-supporting persons, classified by sex, in each

Occupation	1951			1931		
	Persons	Males	Females	Persons	Males	Females
ALL NON-AGRICULTURAL CLASSES	4,122,140	3,513,018	609,122	2,889,497	2,269,282	620,215
LIVELIHOOD CLASS V (Production other than cultivation)	1,665,675	1,345,092	320,583	1,111,791	809,438	302,353
Primary Industries not elsewhere specified	*347,403*	*227,853*	*119,550*	*382,555*	*246,753*	*135,802*
0.1 Stock Raising	24,708	22,142	2,566	52,916	49,992	2,924
0.2 Rearing of small animals and insects	7,468	6,541	927	673	197	476
0.3 Plantation Industries	256,939	148,664	108,275	265,017	154,225	110,792
0.4 Forestry and woodcutting	9,144	7,770	1,374	2,030	1,914	116
0.5 Hunting (including trapping and Game Propagation)	772	512	260	423	417	6
0.6 Fishing	48,372	42,224	6,148	61,496	40,008	21,488
Mining and Quarrying	*120,686*	*85,804*	*34,882*	*42,089*	*24,734*	*17,355*
1.0 Non-metallic mining and quarrying not otherwise classified	1,485	1,479	6	13	3	10
1.1 Coal mining	114,036	80,319	33,717	41,402	24,081	17,321
1.2 Iron ore mining	369	299	70	..	..	..
1.3 Metal mining except iron ore mining	596	578	18	651	635	16
1.4 Crude Petroleum and Natural Gas	1,193	1,180	13	10	6	4
1.5 Stone-quarrying, clay and sand pits	2,502	1,523	979	..	..	..
1.6 Mica	233	216	17	9	5	4
1.7 Salt, saltpetre and saline substances	272	210	62	4	4	..
Processing and Manufacture-Foodstuffs, Textiles, Leather and Products thereof	*683,359*	*548,829*	*134,530*	*500,135*	*370,881*	*129,254*
2.0 Food Industries otherwise unclassified	15,506	14,124	1,382	4,260	4,161	99
2.1 Grains and pulses	111,413	23,272	88,141	92,692	7,901	84,791
2.2 Vegetable oil and dairy products	13,011	11,779	1,232	21,027	20,017	1,010
2.3 Sugar Industries	2,624	2,189	435	1,004	989	15
2.4 Beverages	4,564	4,035	529	547	526	21
2.5 Tobacco	48,060	44,937	3,123	10,151	9,050	1,101
2.6 Cotton textiles	76,605	71,335	5,270	60,753	54,392	6,361
2.7 Wearing apparel (except footwear) and made up textile goods	64,038	61,292	2,746	30,301	28,784	1,517
2.8 Textile Industries otherwise unclassified	307,117	275,891	31,226	259,903	226,958	32,945
2.9 Leather, leather products and footwear	40,421	39,975	446	19,497	18,103	1,394
Processing and Manufacture—Metals, Chemicals and Products thereof	*253,706*	*241,921*	*11,785*	*40,727*	*39,708*	*1,019*
3.0 Manufacture of metal products, otherwise unclassified	80,496	73,112	7,384	31,646	30,775	871
3.1 Iron and Steel (Basic Manufacture)	29,441	27,552	1,889	1,733	1,726	7
3.2 Non-Ferrous Metals (Basic Manufacture)	3,694	3,652	42			
3.3 Transport Equipment	55,665	54,831	834	3,095	3,084	11
3.4 Electrical machinery, apparatus, appliances and supplies	20,320	20,160	160	1,603	1,602	1
3.5 Machinery (other than electrical machinery) including Engineering Workshops	39,506	39,038	468	301	283	18
3.6 Basic Industrial Chemicals Fertiliser and Power Alcohol	2,281	2,252	29	1,097	1,044	53
3.7 Medical and Pharmaceutical Preparations	7,333	7,177	156	1,252	1,194	58
3.8 Manufacture of chemical products otherwise unclassified	14,970	14,147	823			
Processing and Manufacture—Not elsewhere specified	*260,521*	*240,685*	*19,836*	*146,285*	*127,362*	*18,923*
4.0 Manufacturing Industries otherwise unclassified	56,470	53,318	3,152	23,099	21,987	1,112
4.1 Products of petroleum and coal	1,571	1,560	11	69	69	..
4.2 Bricks, tiles and other structural clay products	42,541	35,499	7,042	17,132	14,013	3,119
4.3 Cement—Cement pipes and other cement products	755	674	81	5,007	4,177	830
4.4 Non-metallic mineral products	28,884	26,095	2,789	22,852	18,683	4,169

V.2

non-agricultural economic division and subdivision, 1901-51

1921			1911			1901		
Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
3,034,179	2,231,844	802,335	3,409,672	2,411,127	998,545	3,474,587	2,412,711	1,061,876
1,373,552	946,357	427,195	1,547,900	992,027	555,873	1,403,790	869,173	534,617
397,527	*251,683*	*145,844*	*555,562*	*378,793*	*176,769*	*553,971*	*368,429*	*185,542*
86,960	83,222	3,738	201,737	191,310	10,427	167,724	161,772	5,952
5,677	3,417	2,260	22,676	8,860	13,816	..	..	..
225,079	118,220	106,859	196,930	106,519	90,411	300,265	152,046	148,219
6,987	4,624	2,363	11,966	8,295	3,671	5,112	5,103	9
455	431	24	561	494	67	611	587	24
72,369	41,769	30,600	121,692	63,315	58,377	80,259	48,921	31,338
67,318	*38,249*	*29,069*	*65,449*	*40,285*	*25,164*	*58,376*	*45,329*	*13,047*
9	9	..	738	591	147	..	..	..
67,301	38,232	29,069	64,498	39,485	25,013	23,405	10,910	12,495
..	..	..	..	..	..	..	..	..
..	..	..	3	3	..	34,971	34,419	552
..	..	..	..	..	..	..	..	..
5	5	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..
3	3	..	210	206	4	..	..	..
600,523	*395,488*	*205,035*	*657,616*	*358,019*	*299,597*	*515,631*	*264,554*	*251,077*
9,771	8,964	807	11,966	10,526	1,440	35,567	33,149	2,418
141,480	13,914	127,566	227,770	9,722	218,048	202,780	12,509	190,271
28,278	23,751	4,527	21,701	17,330	4,371	18,871	15,267	3,604
920	911	9	1,989	1,937	52	..	..	..
580	576	4	..	..	..	717	717	..
..	..	..	..	..	..	..	..	..
69,173	54,054	15,119	84,842	64,948	19,894	88,484	73,674	14,810
34,221	31,331	2,890	37,457	32,020	5,437	33,953	29,846	4,107
287,857	234,764	53,093	242,538	192,808	49,730	130,479	94,780	35,699
28,243	27,223	1,020	29,353	28,728	625	4,780	4,612	168
91,066	*84,442*	*6,624*	*60,672*	*58,161*	*2,511*	*57,615*	*55,798*	*1,817*
41,090	39,324	1,766	49,335	48,051	1,284	9,948	9,705	243
13,092	12,082	1,010	1,024	999	25	25,738	25,370	368
..	..	..	..	..	..	..	..	..
31,375	28,391	2,984	7,867	7,264	603	4,700	4,669	31
..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	10,973	10,887	86
..	..	..	..	..	..	2,638	2,186	452
3,360	2,602	758	..	..	..	3,076	2,579	497
2,149	2,043	106	2,446	1,847	599	542	402	140
217,118	*176,495*	*40,623*	*208,601*	*156,769*	*51,832*	*218,197*	*135,063*	*83,134*
85,079	82,462	2,617	45,807	41,720	4,087	12,928	9,295	3,633
49	33	16	..	..	..	..	..	..
46,853	42,511	4,342	19,664	15,999	3,665	11,035	9,553	1,482
..	..	..	..	..	..	..	..	..
37 781	25,959	11,822	37,742	25,268	12,474	31,348	24,245	7,103

STATEMENT

Occupation	1951			1931		
	Persons	Males	Females	Persons	Males	Females
4.5 Rubber products	9,201	9,107	94	Negligible figure included in item 4.0		
4.6 Wood and wood products other than furniture and fixtures	77,759	72,132	5,627	63,587	54,240	9,347
4.7 Furniture and fixtures	3,666	3,485	181	1,801	1,498	303
4.8 Paper and paper products	12,939	12,303	636	624	596	28
4.9 Printing and Allied Industries	26,735	26,512	223	12,114	12,099	15
LIVELIHOOD CLASS VI	774,816	721,127	53,689	415,782	316,922	98,860
Commerce	*774,816*	*721,127*	*53,689*	*415,782*	*316,922*	*98,860*
6.0 Retail trade otherwise unclassified	204,383	195,215	9,168	34,071	28,663	5,408
6.1 Retail trade in foodstuffs (including beverages and narcotics)	324,319	290,029	34,290	127,815	88,870	38,945
6.2 Retail trade in fuel (including petrol)	22,170	17,636	4,534	4,203	3,175	1,028
6.3 Retail trade in textile and leather goods	55,935	54,788	1,147	21,836	19,346	2,490
6.4 Wholesale trade in foodstuffs	19,557	17,905	1,652	123,799	85,042	38,757
6.5 Wholesale trade in commodities other than foodstuffs	100,755	99,116	1,639	87,529	77,430	10,099
6.6 Real Estate	3,808	3,343	465	4,009	3,907	102
6.7 Insurance	8,780	8,560	220	12,520	10,489	2,031
6.8 Moneylending, banking, and other financial business	35,109	34,535	574			
LIVELIHOOD CLASS VII	326,054	318,836	7,218	106,138	104,473	1,665
Transport	*326,054*	*318,836*	*7,218*	*106,138*	*104,473*	*1,665*
7.0 Transport and communications otherwise unclassified and incidental services	7,264	6,887	377	..	..	..
7.1 Transport by road	141,300	137,830	3,470	45,164	44,372	792
7.2 Transport by water	77,551	76,563	988	36,530	36,424	106
7.3 Transport by Air	4,874	4,772	102	53	51	2
7.4 Railway Transport	95,065	92,784	2,281	24,391	23,626	765
LIVELIHOOD CLASS VIII (Other services and miscellaneous sources)	1,355,595	1,127,963	227,632	1,255,786	1,038,449	217,337
Construction and Utilities	*176,644*	*159,800*	*16,844*	*111,623*	*95,293*	*16,330*
5.0 Construction and maintenance of works—otherwise unclassified	11,863	10,247	1,616	..	..	..
5.1 Construction and maintenance—Buildings	73,867	68,036	5,831	35,677	32,938	2,739
5.2 Construction and maintenance—Roads, Bridges, and other Transport Works	8,116	7,188	928	45,027	36,019	9,008
5.3 Construction and Maintenance—Telegraph and Telephone Lines	1,599	1,468	131	..	..	..
5.4 Construction and Maintenance operations—Irrigation and other agricultural works	9,154	7,967	1,187	1,725	1,709	16
5.5 Works and Services—Electric Power and Gas supply	17,266	16,975	291	1,603	1,602	1
5.6 Works and Services—Domestic and Industrial water supply	3,559	3,234	325	..	..	..
5.7 Sanitary Works and Services—Including scavengers	24,886	19,900	4,986	17,137	12,702	4,435
7.5 Storage and warehousing	642	582	60	4,010	3,907	103
7.6 Postal Services	16,206	15,811	395	6,444	6,416	28
7.7 Telegraph Services	5,181	5,067	114			
7.8 Telephone Services	3,716	2,762	954			
7.9 Wireless Services	589	563	26			
Health, Education and Public Administration	*287,114*	*263,175*	*23,939*	*158,686*	*146,592*	*12,094*
8.1 Medical and other Health Services	57,037	46,876	10,161	29,574	21,976	7,598
8.2 Educational Services and Research	65,375	58,126	7,249	26,111	24,326	1,785
8.3 Army, Navy and Air Force	..	..	..	..	..	..
8.4 Police (other than village watchmen)	33,544	33,021	523	12,470	12,470	..
8.5 Village officers and servants, including village watchmen	8,410	8,172	238	17,620	17,583	37

V.2—contd.

1921			1911			1901		
Persons	**Males**	**Females**	**Persons**	**Males**	**Females**	**Persons**	**Males**	**Females**
..	..	..	..	..	..	..	..	..
83,399	61,985	21,414	89,673	59,031	30,642	89,795	54,471	35,324
1,376	1,358	18	1,892	1,289	603	58,271	23,134	35,137
1,600	1,442	158	1,979	1,706	273	3,859	3,473	386
10,981	10,745	236	11,844	11,756	88	10,961	10,892	69
420,711	293,065	127,646	531,281	362,565	168,716	478,014	322,877	156,037
420,711	*293,065*	*127,646*	*531,281*	*362,565*	*168,716*	*478,914*	*322,877*	*156,037*
59,563	55,699	3,864	30,321	27,631	2,690	71,425	62,909	8,516
236,631	136,281	100,350	311,798	192,400	119,398	308,086	186,794	121,292
14,029	5,196	8,833	28,567	6,904	21,663	24,695	6,085	18,610
57,805	50,222	7,583	70,930	64,490	6,440	38,484	36,216	2,268
3,054	2,742	312	5,129	4,000	1,129	..	..	..
25,362	20,441	4,921	57,049	43,057	13,992	16,979	14,764	2,215
..	..	..	..	..	..	3,695	3,695	..
..	..	..	..	..	..	..	..	..
24,267	22,484	1,783	27,487	24,083	3,404	15,550	12,414	3,136
140,411	138,949	1,462	214,594	210,762	3,832	82,734	82,021	713
140,411	*138,949*	*1,462*	*214,594*	*210,762*	*3,832*	*82,734*	*82,021*	*713*
..	..	..	..	..	..	1,243	1,204	39
61,306	60,226	1,080	85,219	84,012	1,207	55,328	54,798	530
47,120	47,013	107	72,516	71,240	1,276	1,056	1,046	10
22	22	..	..	..	..	..	..	..
31,963	31688	275	56,859	55,510	1,349	25,107	24,973	134
1,099,505	853,473	246,032	1,115,897	845,773	270,124	1,509,149	1,138,640	370,509
117,597	*95,636*	*21,961*	*173,928*	*139,665*	*34,263*	*247,072*	*189,465*	*57,607*
..	..	..	..	..	..	..	..	..
39,228	35,713	3,515	67,243	61,578	5,665	35,894	31,959	3,935
36,721	25,667	11,054	75,149	53,302	21,847	163,825	116,198	47,627
..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..
2,826	2,781	45	2,878	2,862	16	..	..	..
11,678	9,892	1,786	2,080	1,352	728	..	..	..
19,032	13,587	5,445	20,180	14,259	5,921	17,797	13,044	4,753
..	..	..	..	..	..	23,314	22,039	1,275
8,112	7,996	116	6,398	6,312	86	6,242	6,225	17
112,243	*103,490*	*8,753*	*117,261*	*105,255*	*12,006*	*113,488*	*103,818*	*9,670*
25,335	18,534	6,801	26,381	16,435	9,946	24,777	16,458	8,319
19,876	18,325	1,551	21,001	19,542	1,459	23,966	22,832	1,134
..	..	..	..	..	..	..	..	..
12,379	12,379	..	12,138	12,138	..	13,959	13,906	53
19,168	19,168	..	22,502	22,502	..	24,868	24,868	..

STATEMENT

Occupation	1951			1931		
	Persons	Males	Females	Persons	Males	Females
8.6 Employees of Municipalities and Local Boards (but not including persons classifiable under any other division or subdivision)	24,545	21,285	3,260	8,589	8,379	210
8.7 Employees of State Governments	64,889	62,997	1,892	60,859	58,399	2,460
8.8 Employees of the Union Government	31,608	31,038	570	3,463	3,459	4
8.9 Employees of Non-Indian Governments	1,706	1,660	46			
Services not elsewhere specified	*778,041*	*640,784*	*137,257*	*985,477*	*796,564*	*188,913*
9.0 Services otherwise unclassified	304,502	274,600	29,902	554,621	460,998	93,623
9.1 Domestic services (but not including services rendered by members of family households to one another)	277,053	192,034	85,019	311,024	226,208	84,816
9.2 Barbers and beauty shops	31,483	29,229	2,254	28,000	25,442	2,558
9.3 Laundries and Laundry services	27,434	24,356	3,078	21,247	16,643	4,604
9.4 Hotels, restaurants and eating houses	38,451	36,556	1,895	6,771	6,212	559
9.5 Recreation services	26,534	16,779	9,755	7,513	6,952	561
9.6 Legal and business services	29,513	27,378	2,135	17,040	16,803	237
9.7 Arts, letters and journalism	7,087	6,861	226	2,176	2,115	61
9.8 Religious, Charitable and Welfare Services.	35,984	32,991	2,993	37,085	35,191	1,894
Unclassifiable	113,796	64,204	49,592	..	..	..

V.2—concld.

1921			1911			1901		
Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
10,884	10,610	274	7,830	7,258	572	5,767	5,652	115
19,856	19,729	127	19,787	19,760	27	13,556	13,507	49
4,745	4,745	..	7,622	7,620	2	6,595	6,595	..
..	..	..	..	..	..	..	..	..
869,665	*654,347*	*215,318*	*824,708*	*600,853*	*223,855*	*1,148,589*	*845,357*	*303,232*
326,479	215,538	110,941	313,633	215,961	97,672	637,131	500,282	136,849
280,567	195,633	84,934	271,271	180,800	90,471	269,040	171,893	97,147
33,140	28,560	4,580	36,853	29,218	7,635	37,650	31,983	5,667
27,730	19,014	8,716	32,162	20,777	11,385	31,423	21,444	9,979
6,411	5,457	954	2,840	2,452	388	1,669	1,360	309
7,998	7,284	714	14,098	13,187	911	45,405	15,564	29,841
144,478	140,876	3,602	75,939	74,840	1,099	33,871	32,601	1,270
4,106	3,955	151	1,937	1,816	121	906	858	48
38,756	38,030	726	75,975	61,802	14,173	91,494	69,372	22,122
..	..	..	..	..	..	..	..	..

11. This statement has been recast to show the total number of self-supporting persons in each division and subdivision expressed in terms of ten thousand of the total population of the decade in question. For decades up to 1931 the total population of West Bengal has been made to include the pre-partition populations of districts that were affected by the Partition of 1947. Hence the total population of West Bengal up to 1931 differs slightly from the figures published in Union Table A.II. Statement V.3 expresses the total number of self-supporting persons in each non-agricultural economic division and subdivision in each decade from 1901 per 10,000 of total population of that decade.

STATEMENT V.3

Number of self-supporting persons in each non-agricultural economic division and subdivision per 10,000 of total population, 1901-51

Occupation	1951	1931	1921	1911	1901
ALL NON-AGRICULTURAL CLASSES .	1,661	1,433	1,611	1,772	1,90
LIVELIHOOD CLASS V (Production other than cultivation	671	551	729	804	770
Primary Industries not elsewhere specified .	*140*	*190*	*211*	*289*	*304*
0.1 Stock Raising	10	26	46	105	92
0.2 Rearing of small animals and insects .	3	0·3	3	12	..
0.3 Plantation Industries	104	131	120	102	165
0.4 Forestry and woodcutting . . .	4	1	4	6	3
0.5 Hunting (including trapping and Game Propagation)	0·3	0·2	0·2	0·3	0·3
0.6 Fishing	19	31	38	64	44
Mining and Quarrying	*49*	*21*	*36*	*34*	*32*
1.0 Non-metallic mining and Quarrying not otherwise classified	1	0·01	0·005	0·4	..
1.1 Coal mining	46	21	36	34	13
1.2 Iron ore mining	0·1	..	..	..	..
1·3 Metal mining except iron ore mining .	0·2	0·3	..	0·002	19
1.4 Crude Petroleum and Natural Gas .	0·5	0·005	..	..	..
1.5 Stone-quarrying, clay and sand pits .	1	..	0·003	..	..
1·6 Mica	0·1	0·004	..	..	..
1.7 Salt, Saltpetre and Saline substances .	0·1	0·002	0·002	0·1	..
Processing and Manufacture—Foodstuffs, Textiles, Leather and Products thereof	*275*	*248*	*319*	*341*	*282*
2.0 Food Industries otherwise unclassified .	6	1	5	6	20
2.1 Grains and pulses	45	46	75	119	111
2.2 Vegetable oil and dairy products . .	5	10	15	11	10
2.3 Sugar Industries	1	0·5	0·5	1	..
2.4 Beverages	2	0·3	0·3	..	0·4
2.5 Tobacco	19	5	..	..	..
2·6 Cotton textiles	31	30	37	44	47
2.7 Wearing apparel (except footwear) and made up textile goods	26	15	18	19	19
2.8 Textile Industries otherwise unclassified	124	129	153	126	72
2.9 Leather, leather products and footwear	16	11	15	15	3
Processing and Manufacture—Metals, Chemicals and Products thereof	*102*	*20*	*48*	*32*	*32*
3.0 Manufacture of metal products, otherwise unclassified	33	16	21	26	6
3.1 Iron and Steel (Basic Manufacture) .	12	0·9	7	1	14
3.2 Non-Ferrous Metals (Basic Manufacture)	1		..	..	..
3.3 Transport Equipment	22	1·5	17	4	3
3.4 Electrical Machinery, apparatus, appliances and supplies	8	0·8	..	..	..

COMPARISON OF EMPLOYMENT 1901-51

STATEMENT V.3—contd.

Occupation	1951	1931	1921	1911	1901
3.5 Machinery (other than electrical machinery) including Engineering Workshops	16	0·1	..	..	6
3.6 Basic Industrial Chemicals, Fertiliser and Power Alcohol	1	0·5	..	..	1
3.7 Medical and Pharmaceutical Preparations	3	0·6	2	..	2
3.8 Manufacture of chemical products otherwise unclassified	6		1	1	0·3
Processing and Manufacture—Not elsewhere specified	*105*	*72*	*115*	*108*	*120*
4.0 Manufacturing Industries otherwise unclassified	23	11	19	24	7
4.1 Products of petroleum and coal . .	1	0·03	0·03	..	..
4.2 Bricks, tiles and other structural clay products	17	8	24	10	6
4.3 Cement—Cement pipes and other cement products	0·3	3	..	..	..
4.4 Non-metallic mineral products . .	12	11	20	20	17
4.5 Rubber products	4	..	..	..	..
4.6 Wood and wood products other than furniture and fixtures	31	32	44	46	50
4.7 Furniture and fixtures . . .	1	1	1	1	32
4.8 Paper and paper products . . .	5	0·3	1	1	2
4.9 Printing and Allied Industries . .	11	6	6	6	6
LIVELIHOOD CLASS VI	312	206	223	276	263
Commerce	*312*	*206*	*223*	*276*	*263*
6.0 Retail trade otherwise unclasified .	81	17	32	16	39
6.1 Retail trade in foodstuffs (including beverages and narcotics)	130	63	125	162	169
6.2 Retail trade in fuel (including petrol) .	9	3	7	15	14
6.3 Retail trade in textile and leather goods	23	11	31	37	21
6.4 Wholesale trade in foodstuffs . .	8	61	2	3	..
6.5 Wholesale trade in commodities other than foodstuffs	41	43	13	29	9
6.6 Real Estate	2	2	..	..	2
6.7 Insurance	4	6	..	..	..
6.8 Moneylending, banking and other financial business	14		13	14	9
LIVELIHOOD CLASS VII	131	53	75	112	45
Transport	*131*	*53*	*75*	*112*	*45*
7.0 Transport and communications otherwise unclassified and incidental services	3	..	..	..	1
7.1 Transport by road	57	23	33	44	30
7.2 Transport by water	31	18	25	38	1
7.3 Transport by Air	2	0·03	0·01	..	..
7.4 Railway transport	38	12	17	30	13
LIVELIHOOD CLASS VIII (Other services and miscellaneous sources)	547	623	584	580	829
Construction and Utilities	*71*	*55*	*62*	*90*	*136*
5.0 Construction and maintenance of works—otherwise unclassified	5	..	..	..	..
5.1 Construction and maintenance—Buildings	30	18	21	35	20
5.2 Construction and maintenance—Roads, Bridges and other Transport Works	3	22	19	39	90
5.3 Construction and Maintenance—Telegraph and Telephone Lines	1	..	..	..	..
5.4 Construction and Maintenance operations—Irrigation and other agricultural works	4	1	..	..	..

STATEMENT V.3—concld.

Occupation	1951	1931	1921	1911	1901
5.5 Works and Services—Electric Power and Gas supply	7	1	2	2	..
5.6 Works and Services—Domestic and Industrial water supply	1	..	6	1	..
5.7 Sanitary Works and Services—Including scavengers	10	8	10	10	10
7.5 Storage and warehousing	0·3	2	..	..	13
7.6 Postal Services	7	3	4	3	3
7.7 Telegraph Services	2				
7.8 Telephone Services	1				
7.9 Wireless Services	0·2		..	..	..
Health, Education and Public Administration	*116*	*79*	*60*	*61*	*62*
8.1 Medical and other Health Services	23	15	13	14	13
8.2 Educational Services and Research	26	13	11	11	13
8.3 Army, Navy and Air Force	..	..	..	..	..
8.4 Police (other than village watchmen)	14	6	7	6	8
8.5 Village officers and servants, including village watchmen	3	9	10	12	14
8.6 Employees of Municipalities and Local Boards (but not including persons classifiable under any other division or subdivision)	10	5	6	4	3
8.7 Employees of State Governments	26	30	11	10	7
8.8 Employees of the Union Government	13	1	2	4	4
8.9 Employees of non-Indian Governments	1		..	..	..
Services not elsewhere specified	*314*	*489*	*462*	*429*	*631*
9.0 Services otherwise unclassified	123	275	173	163	350
9.1 Domestic services (but not including services rendered by members of family households to one another)	112	154	149	141	148
9.2 Barbers and beauty shops	13	14	18	19	21
9.3 Laundries and Laundry services	11	11	15	17	17
9.4 Hotels, restaurants and eating houses	15	3	3	2	1
9.5 Recreation services	11	4	4	7	25
9.6 Legal and business services	12	8	77	39	19
9.7 Arts, letters and journalism	3	2	2	1	0·5
9.8 Religious, Charitable and Welfare Services	14	18	21	40	50
Unclassifiable	46	..	..	..	..

NOTE—Figures (1931-1901) have been calculated on unadjusted total population. Unadjusted population of West Bengal—1931=20,161,182; 1921=18,839,308; 1911=19,240,789; 1901=18,221,487.

12. Brief notice will now be taken of those Livelihood Classes, Divisions and Subdivisions which show an increase or decrease in employment in 1951 from previous censuses. The survey may be conveniently made in two parts: A. Those Classes, Divisions or Subdivisions which have registered either a decrease in employment or a state of stagnation over 1901-51, and B. Those others which show a steady improvement in employment and expansion of activities. We may begin with Part A.

A. Livelihood Classes, Divisions or Subdivisions which show stagnation or deterioration in providing employment to the State's population

LIVELIHOOD CLASS V—PRODUCTION OTHER THAN CULTIVATION

13. This class represents the total of employment in all kinds of productive industries in the State, whether in modern mills and factories or in cottage crafts, whether of employers and employees or of independent workers.

This class, therefore, holds the prosperity index of the State and it is, indeed, depressing that the index shows an appreciable decline since 1911. It also shows rather forcefully the effect of the Great Economic Crisis of 1929. The indices are as follows:

Year	Number of self-supporting persons per 10,000 of total population in Livelihood Class V Production other than cultivation
1951	671
1931	551
1921	729
1911	804
1901	770

The absolute figures are as follows:

Year	Self-supporting persons in Livelihood Class V	
	Males	Females
1951	1,345,092	320,583
1931	809,438	302,353
1921	946,357	427,195
1911	992,027	555,873
1901	869,173	534,617

The economic depression of 1931 had a devastating effect on employment. The employment of males was almost steady up to 1921, but the employment of females has decreased very definitely and considerably from 1901 and 1911: evidence of the deepening economic crisis and deterioration of the economic status, and consequently of the social status of women. It used to be a point of social and economic prestige among the middle and upper classes to keep their women in purdah and relieve them of the necessity of earning for the family. This idea rapidly caught on among a large number of scheduled and backward castes and tribes especially in districts close to the metropolis and was partly responsible for the decrease in the employment of women after 1911 when caste classification in the Indian Census reached the highest peak of refinement and was the fruitful source of social rivalry. But the intensification of the crisis in employment must be held mainly responsible for the ousting by males of females in this Livelihood Class.

14. The following Divisions and Subdivisions under Livelihood Class V have registered a distinct fall in the employment of self-supporting persons per 10,000 of total population in West Bengal:

(i) *Division O—Primary Industries not elsewhere specified*

15. There has been a steady and considerable decrease in employment in this division at each census from 1901. Both the proportions and absolutes of this decrease are shown below:

Year	Number of self-supporting persons per 10,000 of total population	Number of self-supporting persons	
		Males	Females
1951	140	227,853	119,550
1931	190	246,753	135,802
1921	211	251,683	145,844
1911	289	378,793	176,769
1901	304	308,429	185,542

The steady decline in employment in this division also conforms to general experience. This division comprises the pastoral livelihoods as well as plantations and forestry, hunting and fishing. Pasturage has been rapidly dwindling in West Bengal so much so that the State now imports cattle not so much for multiplying stock as for using them while they live, and replenishing dead or slaughtered stock by fresh imports. Such is the present appalling state of stock raising (0·1) in the State; it will hardly, therefore, come as a surprise to the reader to learn that there are large tracts in Birbhum, Bankura, and Midnapur districts where cows are practically unknown, the only cattle available being plough oxen. As for rearing of small animals and insects (0.2) all the industries connected with this subdivision have been in a bad way for a long time, and bee-keeping, silk and tusser worm rearing, and lac-raising are in a state of permanent depression. Only poultry farming has of recent years flourished owing to the high prices of poultry fetched in World War II and thereafter.

0.1 Stock Raising

16. The following statement shows the decline in such occupations as herdsmen and shepherds, breeders and keepers of cattle, buffaloes and other large animals including pack animals.

Year	Number of self-supporting persons per 10,000 of total population	Number of self-supporting persons	
		Males	Females
1951	10	22,142	2,566
1931	26	49,992	2,924
1921	46	83,222	3,738
1911	105	191,310	10,427
1901	92	161,772	5,952

The steady decrease in the employment of males and females is too large to be overlooked.

0·2 Rearing of small animals and insects

Year	Number of self-supporting persons per 10,000 of total population	Number of self-supporting persons	
		Males	Females
1951	3	6,541	927
1931	0·3	197	476
1921	3	3,417	2,260
1911	12	8,860	13,816
1901	..	..	..

17. Here again it is the employment of females that has declined more noticeably than that of males.

0.3 Plantation Industries

18. The only considerable plantation industry is tea. As has been noted in the account of Jalpaiguri and Darjeeling districts in Chapter I, the tea industry never quite recaptured its expansive mood in the present century. On the one hand great improvements have been made in the yield per acre under tea, in the grouping of gardens under a limited number of companies, in the progressive mechanisation and rationalisation of production and therefore in increasing the efficiency of each labourer. Improvement in organisation has therefore been responsible for a decrease in the total number of men employed. While therefore the production of tea has not really fallen, the employment of the population in this subdivision has fluctuated and even decreased. The following statement shows the decline in employment in plantation industries during 1901-51.

Year	Number of self-supporting persons per 10,000 of total population	Number of self-supporting persons	
		Males	Females
1951	104	148,664	108,275
1931	131	154,225	110,792
1921	120	118,220	106,859
1911	102	106,519	90,411
1901	165	152,046	148,219

Forestry and wood-cutting continue to employ almost a stationary proportion of the population since 1901. So does hunting including trapping and game propagation. This means that the absolute numbers of males and females employed in these livelihood subdivisions continue to increase more or less at the rate of population increase.

0.6 Fishing

19. It is in this subdivision that employment has registered a steady and noticeable decline since 1911. The decline is not therefore peculiar to 1951 alone as some might imagine owing to the better and bigger fisheries having fallen to the share of East Bengal. This decline has two serious aspects: first, because the decrease in employment in this livelihood is a serious matter so far as the population is concerned; secondly, because fish constitutes the principal protein diet of the State and a marked decline in fish production is bound to reflect a deterioration in the health of the general population. It should be

remembered that nothing has yet been done to rationalise and organise fisheries and fishing, or to raise the efficiency of each worker, thereby calling for a reduction in the total number of persons employed in this subdivision; fishing still continues to be very much an individualistic and primitive enterprise with the help of small boats and tackle even in the salt lakes, the Sundarbans and estuaries. The following statement shows the steady decline in the number of persons employed in this subdivision.

Year	Number of self-supporting persons per 10,000 of total population	Number of self-supporting persons	
		Males	Females
1951 . . .	10	42,224	6,148
1931 . . .	31	40,008	21,488
1921 . . .	38	41,769	30,600
1911 . . .	64	63,315	58,377
1901 . . .	44	48,921	31,338

The steep decline in the employment of females is most noteworthy. The fishing castes are some of the most backward, and, naturally enough, emulating the middle and upper classes, they went to the length of subjugating even fishwives. On the other hand, it shows the deepening of the crisis in this kind of specialised employment.

(ii) *Division 1—Mining and Quarrying*

20. Almost every subdivision in this division has registered a marked and steady increase (except for 1921) both in the absolutes and proportions of persons employed. The only exception is 1.3 (Metal mining except iron ore mining) where, due to the decline in brass, bellmetal, and copper industries and others employing indigenous alloys the extent of population supported by this kind of mining has very noticeably declined from 1901.

(iii) *Division 2—Processing and Manufacture — Foodstuffs, Textiles, Leather and Products thereof*

21. Contrary to popular belief the proportion of the population employed in this division has declined very noticeably from what it used to be in 1911 or even in 1901. The decline is remarkable in (*a*) miscellaneous food industries mainly in the home produce sector, like ghee, butter, milk products, sweetmeats, preserves, condiments, etc., which housewives formerly used to produce and market through vendors; (*b*) in the grinding, pounding, parching and milling of grains and pulses where machines and mills, having largely replaced hand operated units, have increased the speed and efficiency of the processes but at the same time reduced employment; (*c*) in the production of vegetable oils and dairy products where the cottage oilpress is rapidly giving way to the machine oilpress thus reducing employment; (*d*) cotton textiles where the decrease, from what statistics are available of power driven cotton mills, has occurred almost entirely in the private or individual enterprise sector of handlooms; and lastly in (*e*) other textile industries including jute; here the decline in employment has been in the cottage industries sector of woollen spinning and weaving, silk reeling, spinning and weaving, and hemp and flax spinning and weaving. Thus there has been a deterioration in employment in small establishments and the figures of independent workers and employees in non-mill tracts of the country are a direct evidence of the conclusions recorded above. The days of the small capitalist or own-account worker, especially in (*d*) and (*e*), seem to be rapidly vanishing.

The following statement shows the decrease in proportional and absolute employment in Division 2.

Year	Number of self-supporting persons per 10,000 of total population	Number of self-supporting persons	
		Males	Females
1951 . . .	275	548,829	134,530
1931 . . .	248	370,881	129,254
1921 . . .	319	395,488	205,035
1911 . . .	341	358,019	299,597
1901 . . .	282	264,554	251,677

The steep decline in the employment of females is a distressing feature of the above statement. It indicates that whereas in power driven mills and factories the employment of women has not declined appreciably, it has decreased proportionately more in the cottage industry sector, thus deepening the economic crisis in the rural and semi-urban tracts and lowering the economic and social status of females generally all over the country. This is reflected in the following analyses of Subdivisions under Division 2.

2.0 Food Industries otherwise unclassified

Year	Number of self-supporting persons per 10,000 of total population	Number of self-supporting persons	
		Males	Females
1951 . . .	6	14,124	1,382
1931 . . .	1	4,161	99
1921 . . .	5	8,064	807
1911 . . .	6	10,526	1,440
1901 . .	20	33,149	2,418

2.1 Processing of grains and pulses

Year	Number of self-supporting persons per 10,000 of total population	Number of self-supporting persons	
		Males	Females
1951 . . .	45	23,272	88,141
1931 . . .	46	7,001	84,791
1921 . . .	75	13,914	127,566
1911 . . .	119	9,722	218,048
1901 . . .	111	12,509	190,271

22. This subdivision used to be a virtual monopoly of women as late as 1931. But in the course of the last twenty years they have been rapidly ousted by small power mills and machines. The variety and amount of processed food have also dwindled, as the system of controls and food- rationing introduced in the course of World War II has hit employment in this subdivision very hard. Most affected by the contraction of employment in this subdivision have been widows and divorced or unattached women in villages.

2.2 Vegetable oil and dairy products

23. The following statement shows the trend of employment in this subdivision over the last fifty years.

Year	Number of self-supporting persons per 10,000 of total population	Number of self-supporting persons	
		Males	Females
1951 . . .	5	11,779	1,232
1931 . . .	10	20,017	1,010
1921 . . .	15	23,751	4,527
1911 . . .	11	17,330	4,371
1901 . . .	10	15,267	3,604

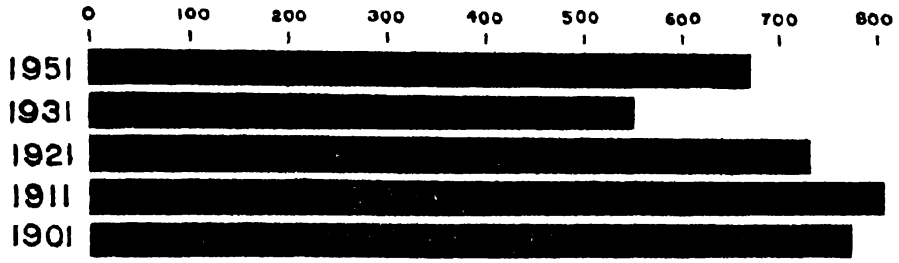
The most important change that has occurred in the course of the last thirty years is the gradual replacement by fewer power driven oil mills of the bullock driven cottage oil press for the extraction of mustard and other vegetable oils. This has reduced employment in the manufacture of vegetable oils both in the village and the town. The second change that has occurred is the gradual disappearance of such oils as inferior mustard, castor and other burning oils for lighting in earthen oil lamps. This has also been responsible for reducing employment. The third change that has occurred is the sudden and widespread popularity in the course of the last twenty years of hydrogenated vegetable oils as a cooking medium owing to the scarcity and adulteration of mustard oil (the pre-eminent cooking medium so far) and the high price and adulteration of butter and ghee, which had so long been almost the only acceptable cooking fat in middle and upper income groups. Hydrogenated oils are manufactured in power driven mills employing machinery and a modern, economical organisation of labour. They aim at high production per unit of labour and therefore employ comparatively few persons. The fall in the employment of women is due not so much to these changes but to the deterioration of the supply of dairy products. The condition of pasturage and stock raising has just been discussed and it is not difficult to imagine how dairy

NUMBER OF SELF-SUPPORTING PERSONS PER 10,000 OF TOTAL POPULATION

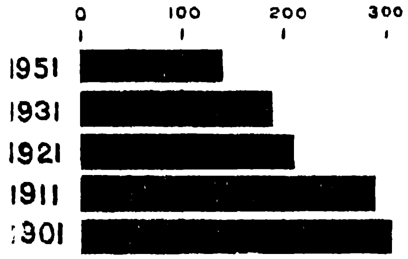
WEST BENGAL

LIVELIHOOD CLASS V

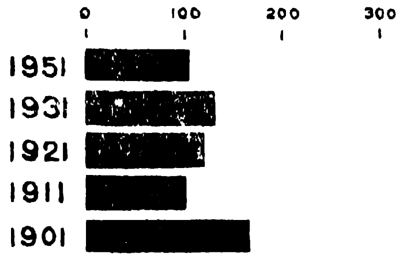
PRODUCTION OTHER THAN CULTIVATION



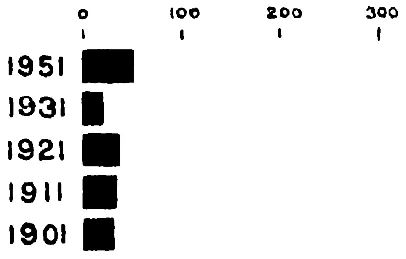
PRIMARY INDUSTRIES NOT ELSEWHERE SPECIFIED



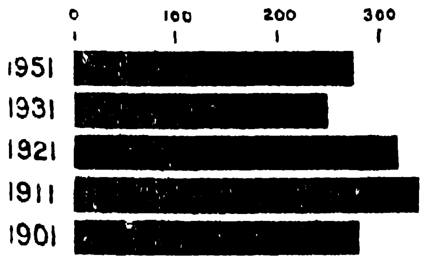
PLANTATION INDUSTRIES



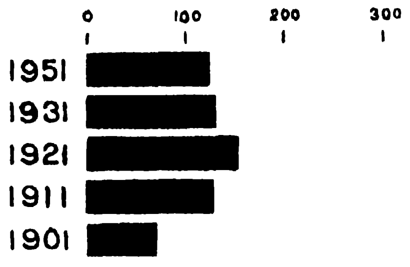
MINING AND QUARRYING



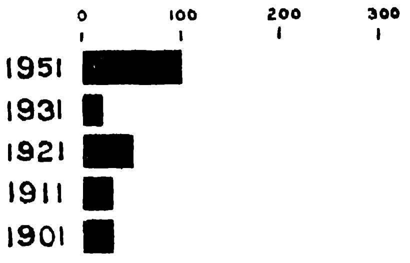
PROCESSING & MANUFACTURE - FOODSTUFFS, TEXTILES, LEATHER & PRODUCTS THEREOF



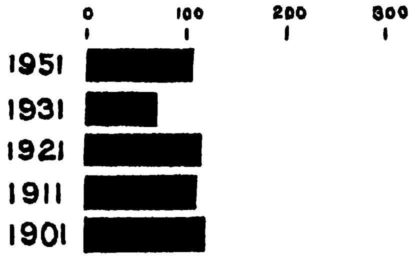
TEXTILE INDUSTRIES OTHERWISE UNCLASSIFIED



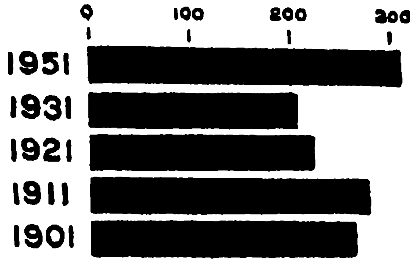
PROCESSING & MANUFACTURE METALS, CHEMICALS AND PRODUCTS THEREOF



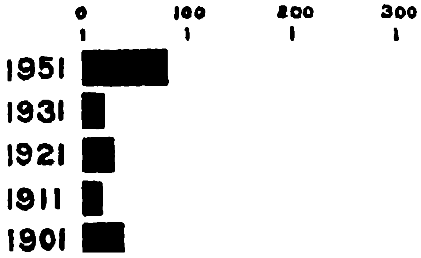
PROCESSING AND MANUFACTURE—NOT ELSEWHERE SPECIFIED



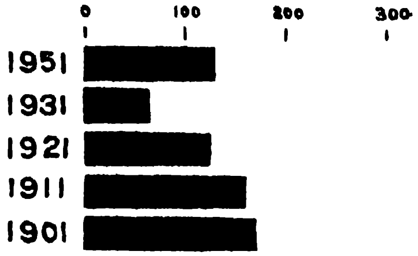
LIVELIHOOD CLASS VI
COMMERCE



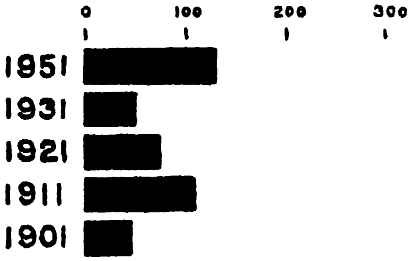
RETAIL TRADE OTHERWISE UNCLASSIFIED



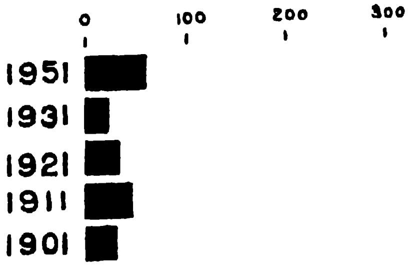
RETAIL TRADE IN FOODSTUFFS (INCLUDING BEVERAGES AND NARCOTICS)



LIVELIHOOD CLASS VII
TRANSPORT

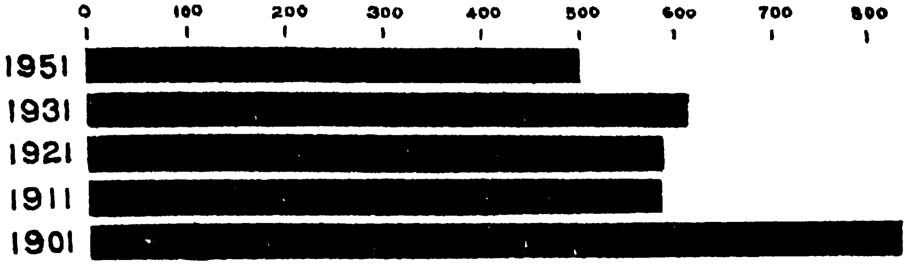


TRANSPORT BY ROAD

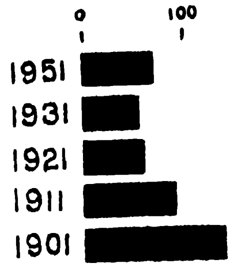


LIVELIHOOD CLASS VIII

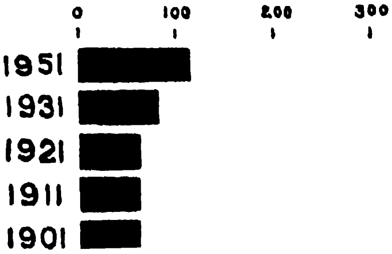
OTHER SERVICES AND MISCELLANEOUS SOURCES



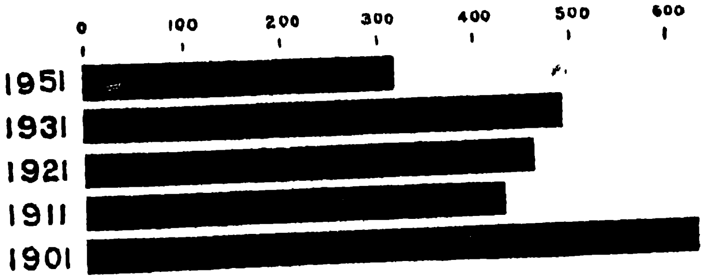
CONSTRUCTION AND UTILITIES



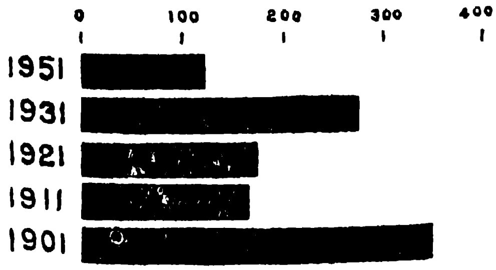
HEALTH, EDUCATION & PUBLIC ADMINISTRATION



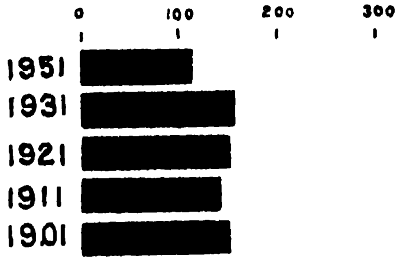
SERVICES NOT ELSEWHERE SPECIFIED



SERVICES OTHERWISE UNCLASSIFIED



DOMESTIC SERVICES (BUT NOT INCLUDING SERVICES RENDERED BY MEMBERS OF FAMILY HOUSEHOLDS TO ONE ANOTHER)



ducts would fare under these circumstances. The supply of milk, butter, whey, curd, cottage cheese, sweetmeats has deteriorated all round, and since it was mostly women who used to undertake the supply of these dairy products, their employment has fallen too. It has also to be remembered in this connexion that the particular caste connected with dairy products, *i.e.*, Jadav, Gop or Goala or Ahir, in trying to imitate the superior castes, gradually withdrew their females from producing and trading on their own, and put them back in the kitchen under false notions of social prestige.

2.6 Cotton textiles

24. This subdivision also has not only failed to provide additional employment to the growing population but has actually contracted its field of employment in the course of the last fifty years. Unfortunately no systematic census of handlooms and other improved cottage looms employing less than twenty persons has been taken at regular intervals, and even in 1951 no reliable count exists of looms outside modern power driven cotton mills. There has been no appreciable decrease of employment in modern power driven cotton mills and so the decline must be almost wholly in hand or cottage looms which do not fall under the purview of the Factories Act. The precarious market of handloom products, the stoppage of exports, the competition of mass produced mill products, the impoverishment of the population, the drying up of the patronage of rich houses, the indifference to design and quality, have all been responsible for the gradual decay of the handloom. The following statement shows the decline in employment in the subdivision.

Year	Number of self-supporting persons per 10,000 of total population	Number of self-supporting persons	
		Males	Females
1951 . . .	31	71,335	5,270
1931 . . .	30	54,392	6,361
1921 . . .	37	54,054	15,119
1911 . . .	44	64,948	19,894
1901 . . .	47	73,674	14,810

Here also the decline in the employment of females tells a similar story and the reasons, too, are very much what have already been recounted.

2.8 Textile Industries otherwise unclassified

25. This subdivision includes: (*a*) jute pressing, baling, spinning and weaving; (*b*) woollen spinning and weaving; (*c*) silk reeling, spinning and weaving; (*d*) hemp and flax spinning and weaving; (*e*) manufacture of rayon; (*f*) manufacture of rope, twine, etc. Employment has not increased with the growth of population. On the other hand this subdivision seems capable of absorbing a very limited population. To judge by the extent of employment it provides, the demand for products of this subdivision seems to be inelastic and fluctuating from decade to decade, as, indeed, in fact it is. As such the subdivision still employs more or less the same proportion of females in 1951 as it used to do in 1901; in 1911 and 1921, however, the number of females employed was a good 18 to 21 thousands more than in 1951.

26. Subdivision 2.9 (Leather, leather products and footwear) has also remained more or less stationary in the proportional share it bears in the employment of the State's population. The proportion was very low in 1901 but from 1911 onwards it has been more or less constant at 15 to 16 self-supporting persons per 10,000 of total population. A low trough was touched in 1931 with only 11 per 10,000 of total population.

(iv) *Division 4—Processing and Manufacture—Not elsewhere specified*

27. Progress in this division has been sporadic from decade to decade, and proportional employment has declined from 1921. The highest proportion of population employed was in 1901. Under this division, however, proportional employment in all subdivisions except 4.4 (Non-metallic mineral products), 4.6 (Wood and wood products other than furniture and fixtures) and 4.7 (Furniture and fixtures) has

generally improved from decade to decade though not uniformly nor even rapidly. The following statement shows the trend of employment in Division 4.

Year	Number of self-supporting persons per 10,000 of total population	Number of self-supporting persons	
		Males	Females
1951 . . .	105	240,685	19,836
1931 . . .	72	127,362	18,923
1921 . . .	115	176,495	40,623
1911 . . .	108	156,769	51,832
1901 . . .	120	135,063	83,134

Here also the employment of women has steadily declined.

28. Those Subdivisions of Division 4 that show marked decline or erratic employment from one census to another are discussed below. Subdivision 4.0 (Manufacturing Industries otherwise unclassified) employs today proportionately less population than it used to do in 1911; so does Subdivision 4.2 (Bricks, tiles and other structural clay products) employ proportionately less in 1951 than in 1921. Subdivision 4.7 has remained practically stationary since 1911.

4.4 Non-metallic mineral products

29. The proportion of population employed in this subdivision has declined markedly from 1901-21. It touched the lowest mark in 1931. The figures are as follows:

Year	Number of self-supporting persons per 10,000 of total population	Number of self-supporting persons	
		Males	Females
1951 . . .	12	26,095	2,789
1931 . . .	11	18,683	4,169
1921 . . .	20	25,959	11,822
1911 . .	20	25,268	12,474
1901 . . .	17	24,245	7,103

This subdivision consists of such groups as 4.41 (Potters and makers of earthenware) 4.42 (Makers of porcelain and crockery), 4.43 (Glass bangles, glass beads, glass necklaces, etc.), 4.44 (Makers of other glass and crystal ware) and 4.40 (Makers of other miscellaneous non-metallic mineral products). Modern factories for porcelain and crockery, and 'other glass and crystal ware' having increased in the course of the period under review, employment in earthenware pottery, small scale manufacture of glass bangles, beads and necklaces and miscellaneous articles must be the groups that have declined considerably, as indeed they have. The rapid decline in the employment of females in this subdivision is thus as portentious as elsewhere.

4.6 Wood and wood products other than furniture and fixtures

30. This subdivision includes such groups as 4.61 (Sawyers), 4.62 (Carpenters, turners and joiners), 4.63 (Veneer and plywood makers, match veneer and splint makers), 4.64 (Basket makers), and 4.60 (Miscellaneous). Most of them are what may be called small scale cottage crafts in this State, although all of them except 4.64 have a modicum of powered factories run as modern industries. The reasons behind the decline in proportional employment and employment of females can therefore be readily appreciated. The figures of proportional and absolute employment from one census to another are as follows:

Year	Number of self-supporting persons per 10,000 of total population	Number of self-supporting persons	
		Males	Females
1951 . . .	31	72,132	5,627
1931 . . .	32	54,240	9,347
1921 . . .	44	61,985	21,414
1911 . . .	46	59,031	30,642
1901 . . .	50	54,471	35,324

LIVELIHOOD CLASS VI—COMMERCE

(v) *Division 6—Commerce*

31. The very small proportion of the population employed in commerce in this State will surprise many a student of West Bengal's population. In any thriving community it accounts for more than 6 per cent. of the population while in West Bengal it is only 3·12 in 1951 and was 2·06 in 1931, 2·23 in 1921, 2·76 in 1911 and 2·63 in 1901. Thus, despite the growing importance of the

State as a commercial zone in the East, and the employment of a large proportion of the Displaced population in trade and petty shopkeeping, the proportion of employment has not very substantially increased from 1911. As a matter of fact certain subdivisions of this division have either suffered a setback or have remained almost stationary. Of these the worst affected naturally have been those channels of trade which work under rigorous controls and operate through agencies appointed or approved by the Government: these are, as can be readily guessed, wholesale and retail trade in foodstuffs, textiles and leather goods, and fuel. The introduction of controlled distributive agencies and rationing in the last decade has acted as a damper on commercial enterprise in these fields as will be evident from the following statement.

6.1 Retail trade in foodstuffs (including beverages and narcotics)

Year	Number of self-supporting persons per 10,000 of total population	Number of self-supporting persons	
		Males	Females
1951 . . .	130	290,029	34,290
1931 . . .	63	88,870	38,945
1921 . . .	125	136,281	100,350
1911 . . .	162	192,400	119,398
1901 . . .	169	186,794	121,292

32. The decline in the employment of females in this subdivision is a feature of particular interest.

6.2 Retail trade in fuel (including petrol)

Year	Number of self-supporting persons per 10,000 of total population	Number of self-supporting persons	
		Males	Females
1951 . .	9	17,636	4,534
1931 . .	3	3,175	1,028
1921 . .	7	5,196	8,833
1911 . .	15	6,904	21,663
1901 . .	14	6,085	18,610

33. Until the large scale introduction at the close of World War I of coke and kerosene as domestic fuel, cowdung, faggots, leaves and twigs of scrub jungles, and charcoal used to be the principal fuels in the State, the preparation, collection and retail sale of which were mainly in the hands of women in the town as well as in the village. The introduction of coke, coal and kerosene in the village and small town and cheap electricity and gas in the city and the rapid disappearance of jungles in the outskirts of villages and towns have deprived women of a useful vocation. The retail distribution of the new substitute fuels is still largely controlled by Government machinery and is therefore prevented from multiplying its distributive points as rapidly as it might have. The retail distribution of petrol has followed modern lines of distributive channels, and as such is greatly rationalised and economical in the employment of human labour.

6.3 Retail trade in textiles and leather goods

The figures are as follows:

Year	Number of self-supporting persons per 10,000 of total population	Number of self-supporting persons	
		Males	Females
1951 . . .	23	54,788	1,147
1931 . . .	11	19,346	2,490
1921 . . .	31	50,222	7,583
1911 . . .	37	64,490	6,440
1901 . . .	21	36,216	2,268

34. Until about 1921 the weaver's wife used to take the loom products to the weekly *hat* or market. But she has been rapidly ousted from this occupation also.

6·4 Wholesale trade in foodstuffs

The figures are as follows:

Year	Number of self-supporting persons per 10,000 of total population	Number of self-supporting persons	
		Males	Females
1951 . . .	8	17,905	1,652
1931 . . .	61	85,042	38,757
1921 . . .	2	2,742	312
1911 . .	3	4,000	1,129
1901 . . .	..	..	..

35. It is possible that there might have been an error of classification in 1931, but it will be correct to say that owing to the enforcing of controls and rationing, the figures for 1951 are lower than they need have been under unrestricted private enterprise.

LIVELIHOOD CLASS VII—TRANSPORT

(vi) *Division 7—Transport, Storage and Communications*

36. Although this Livelihood Class Division gives more proportional and absolute employment to the population in 1951 than in any previous decade, its progress has been sporadic, having improved or declined markedly from decade to decade. The number of self-supporting persons per 10,000 of total population in Transport was 131 in 1951, 53 in 1931, 75 in 1921, 112 in 1911 and 45 in 1901. Similar fluctuations are noticeable in Subdivisions 7.1 (Transport by road) and 7.2 (Transport by water).

LIVELIHOOD CLASS VIII—OTHER SERVICES AND MISCELLANEOUS SOURCES

37. Distressingly enough, this livelihood class shows a definite contraction in both absolute and proportional employment since 1911, and it is significant that the decrease has been mainly contributed by services and other sources in the private enterprise sector, and not in the State or Union Services. The figures for Livelihood Class VIII are as follows:

Year	Number of self-supporting persons per 10,000 of total population	Number of self-supporting persons	
		Males	Females
1951 . . .	547	1,127,963	227,632
1931 . . .	623	1,038,449	217,337
1921 . . .	584	853,473	246,032
1911 . . .	580	845,773	270,124

It is also significant that this is the Livelihood Class which employs the greatest proportion of the population and the maximum number of self-supporting persons. The source of livelihood is generally employment in the service of another and it is important to note that in this sector also employment is on the wane.

38. The decline has occurred chiefly in the following Divisions and Subdivisions:

5.2 (Construction and maintenance — Roads, Bridges and other Transport Works), 8.5 (Village officers and servants including village watchmen), 9 (Services not elsewhere specified), 9.0 (Services otherwise unclassified), 9.1 (Domestic services, not including services rendered by members of family households to one another), 9.2 (Barbers and beauty shops), 9.3 (Laundries and Laundry services), 9.6 (Legal and business services), and 9.8 (Religious, Charitable and Welfare Services).

39. In the following Subdivisions employment has fluctuated between wide limits from census to census, or has remained almost stationary, or is less in 1951 than in a previous decade:

5.1 (Construction and Maintenance —Buildings), 5.6 (Works and Services, Domestic and Industrial water supply), and 5.7 (Sanitary Works and Services—Including scavengers).

In all other divisions and subdivisions employment has steadily, but not spectacularly, improved.

5.2 Construction and Maintenance — Roads, Bridges and other Transport Works.

The figures for 1901-51 are as follows:

Year	Number of self-supporting persons per 10,000 of total population	Number of self-supporting persons	
		Males	Females
1951 . . .	3	7,188	928
1931 . . .	22	36,019	9,008
1921 . . .	19	25,667	11,054
1911 . . .	39	53,302	21,847
1901 . . .	90	116,198	47,627

40. It is not easy to account for the decline. It is possible that quite a

number of persons employed for these works by local self-governing institutions and the State and Union Governments have not been shown under this subdivision but according to the Registrar General's instruction under Subdivisions 8.5, 8.6, 8.7 and 8.8. Here again the progressive decrease from 1901 in the employment of females is remarkable.

8.5 Village officers and servants including village watchmen

The figures are as follows:

Year	Number of self-supporting persons per 10,000 of total population	Number of self-supporting persons	
		Males	Females
1951 . . .	3	8,172	238
1931 . . .	9	17,583	37
1921 . . .	10	19,168	..
1911 . . .	12	22,502	..
1901 . . .	14	24,868	..

41. Females are accounted for by trained or untrained midwives and sweepers employed by union boards and other village institutions, and it is significant that they appear in statistics only in 1931. The males are mostly village watchmen and union board clerks. The village watchmen consist of two categories: the dafadar or head watchman for a union, and the chaukidar whose beat is the village. They are the persons who register vital statistics for the State. Their number has decreased very considerably and this provides an irrefutable clue why the registration of vital statistics in the State, rather than improve with the passage of time, has steadily deteriorated.

(vii) *Division 9—Services not elsewhere specified.*

42. This is the Division which accounts for the great majority of miscellaneous services and it is here that there has been quite a steep decline in employment both proportional and absolute. It is significant that all subdivisions under this division are concerned with the sector of private enterprise, and a large proportion of them are own-account or 'independent workers'. How steeply sustenance under this division has declined will be evident from the following statement:

Year	Number of self-supporting persons per 10,000 of total population	Number of self-supporting persons	
		Males	Females
1951 . . .	314	640,784	137,257
1931 . . .	489	796,564	188,913
1921 . . .	462	654,347	215,318
1911 . . .	429	600,853	223,856

It repeats the same old story of a steady and steep decrease in the employment of females; in addition it shows how the employment of males has remained almost the same through the decades. Miscellaneous services are generally an index of the prosperity of a population; they also indicate how much loose cash a community is able to part with on goods and services which are necessities above the animal level; they are a yardstick of the affluence of a population or how much the latter can 'afford'. It is distressing to find that the condition of West Bengal has been steadily deteriorating over half a century so far as some of the most elementary services of civilisation are concerned. It is hardly necessary to point out that the decrease in employment has not been offset by improvement of mechanical facilities or other labour-saving services.

9.0 Services otherwise unclassified

43. This subdivision comprises a great variety of miscellaneous services which either could not be readily classified into any other subdivision in the Indian Census Economic Classification Scheme, or were insufficiently described on the enumeration slip. The decrease in proportional employment under this subdivision may, therefore, have been due more to efficient economic classification in 1951 on account of which the residual unclassifiable list was brought to a minimum than to the reasons mentioned above. But the gradualness of the

proportions since 1911 shows that a reasonable comparability with previous censuses still exists.

Year	Number of self-supporting persons per 10,000 of total population	Number of self-supporting persons	
		Males	Females
1951 . . .	123	274,600	29,902
1931 . . .	275	460,998	93,623
1921 . . .	173	215,538	110,941
1911 . . .	163	215,961	97,672

This also shows to what extent the employment of females has declined even in this subdivision.

9.1 Domestic services

44. The following statement shows how proportionate employment in this subdivision is declining although the absolutes are more or less constant. The average family finds it increasingly difficult to keep wholetime domestic servants and one welcome feature is the employment of 'helps' by the hour or fraction of a day.

Year	Number of self-supporting persons per 10,000 of total population	Number of self-supporting persons	
		Males	Females
1951 . . .	112	192,034	85,019
1931 . . .	154	226,208	84,816
1921 . . .	149	195,633	84,934
1911 . . .	141	180,800	90,471
1901 . . .	148	171,893	97,147

9.2 Barbers and beauty shops

45. The following statement shows how in spite of a growth in the population and therefore an increasing natural demand for hair cuts the subdivision is not supporting a proportionately larger population. In the urban areas the efficiency of this vocation has been slightly improved, thus causing a reduction in the number of men employed, by the use of clipping machines and improved shops, while generally far less people go today to a barber for a shave, which has become an expensive luxury. Formerly barbers used to be attached to landlords and rich houses by endowments of land. With their decay the endowments have been gradually resumed and now there are few barbers who are exclusively supported by individual families.

Year	Number of self-supporting persons per 10,000 of total population	Number of self-supporting persons	
		Males	Females
1951 . . .	13	29,229	2,254
1931 . . .	14	25,442	2,558
1921 . . .	18	28,560	4,580
1911 . . .	19	29,218	7,635
1901 . . .	21	31,983	5,667

The barber's wife has had her day. A regular afternoon visitor in every rich and middle class home up to about 1925, as the writer remembers as a boy, who manicured the ladies and young girls and juicily retailed local gossip while she went over her chores, a surgeon at that for small boils, she is scarcely to be seen in town. She can still be seen in a prosperous village, her clientele much reduced and her 'shop' largely superseded by private toilet collections of her patrons. She is being replaced in the city and one or two towns, by her modern rival, the hairdresser and manicurist, the 'pedicurist', and attendants at massage and bath shops.

9.3 Laundries and Laundry services

46. Here also the washerman has been worsted. In the town he is giving way to laundries with their washing machines and 'the servant who can iron and press clothes' in upper class homes. In the village he is no longer supported by endowments of land from landlords and rich houses: a great many of these endowments have been resumed. The popular and universal cheap washing soap is his rival and enemy. There is also less money to spend on services which can be otherwise managed at home. The washerwoman too has

fallen on evil days the following statement will show:

Year	Number of self supporting persons per 10,000 of total population	Number of self-supporting persons Males	Number of self-supporting persons Females
1951	11	24,356	3,078
1931	11	16,643	4,604
1921	15	19,014	8,716
1911	17	20,777	11,385
1901	17	21,444	9,979

9.6 Legal and business services

47. These services have also greatly declined since 1921 and now support only a fraction of what they used to in 1921 and 1911. Except in Calcutta city, litigation has declined and quite a few members of the legal professions now earn their livelihood by means other than those for which they took diplomas or degrees. The following statement shows the trend of the population sustained over the fifty-year period. The establishment of High Courts in neighbouring provinces has also drawn away a considerable number of lawyers from West Bengal. The low figure of 1931 has probably something to do with the Civil Disobedience Movement of 1931 in which lawyers took a leading part and probably refrained from correctly returning their professions. Females are accounted for mostly in groups other than those for lawyers in this subdivision and were recruited largely from among Indian Christians, Anglo-Indians and non-Indians in the city.

Year	Number of self-supporting persons per 10,000 of total population	Number of self-supporting persons Males	Number of self-supporting persons Femalc
1951	12	27,378	2,135
1931	8	16,803	237
1921	77	140,876	3,602
1911	39	74,840	1,099
1901	19	32,601	1,270

9.8 Religious, Charitable and Welfare Services

48. Here also the subdivision has ceased to sustain as much as it used to in previous decades. The figures are as follows:

Year	Number of self-supporting persons per 10,000 of total population	Number of self-supporting persons Males	Number of self-supporting persons Females
1951	14	32,991	2,993
1931	18	35,191	1,894
1921	21	38,030	726
1911	40	61,802	14,173
1901	50	69,372	22,122

There are fewer religious mendicants and members of the religious orders today than in the beginning of the century. The charitable and welfare services are less flourishing today than formerly. An interesting episode of social history is unfolded by the figures of women supported in this subdivision. In the first two decades they were mostly keepers and attendants of village temples and sacred places. A general move for resumption by landlords of lands formerly given away to religious endowments began with World War I and hit priests, keepers and attendants of temples badly below the belt. The result was a steep and sudden landslide in the number of persons supported by these endowments. The figures for 1931 and 1951 show a gradual increase, not a little of which has been contributed by beggar women passing off as religious mendicants. Also a number of fradulent as well as genuine charitable or welfare institutions have cropped up in recent years claiming to look after unattached women, widows and orphan girls.

49. We can now turn to those Livelihood Classes, Divisions or Subdivisions which show continuous improvement in providing employment to the State's population.

B. Livelihood Classes, Divisions and Subdivisions which show continuous improvement in providing employment to the State's population

Livelihood Class V—Production other than Cultivation

(i) *Division 3—Processing and Manufacture—Metals, Chemicals and Products thereof*

50. This division shows a fairly steady improvement from 1901, except for 1931 when the Depression upset the proportions very thoroughly as a result of which this division was 'down in the dumps', as the following statement will show :

Year	Number of self-supporting persons per 10,000 of total population	Number of self-supporting persons	
		Males	Females
1951 . . .	102	241,921	11,785
1931 . . .	20	39,708	1,019
1921 . . .	48	84,442	6,624
1911 . . .	32	58,161	2,511
1901 . . .	32	55,798	1,817

A welcome feature is the increase in the employment of women, a large proportion of whom, however, are born outside the State. This division has made a very considerable advance from 1921. Improvement has been maintained in every subdivision, and particularly in 3.0 (Manufacture of metal products, otherwise unclassified), 3.1 (Basic Manufacture of Iron and Steel), 3.2 (Basic Manufacture of Non-Ferrous Metals), 3.3 (Transport Equipment), 3.4 (Electrical machinery, apparatus, appliances and supplies), 3.5 (Machinery other than electrical machinery including Engineering Workshops), 3.6 (Basic Industrial Chemicals, Fertilisers and Power Alcohol), 3.7 (Medical and Pharmaceutical Preparations), and 3.8 (Manufacture of chemical products otherwise unclassified). The steady improvement in the employment of females in also each subdivision, barring 3.6 and 3.7, is a reassuring feature, the great majority of them, however are not natives of West Bengal.

(ii) *Division 4—Processing and Manufacture—Not elsewhere specified*

51. Only the following Subdivisions have registered steady improvement from decade to decade : 4.8 (Paper and paper products) and 4.9 (Printing and Allied Industries).

4.8 Paper and paper products

The figures are as follows:

Year	Number of self-supporting persons per 10,000 of total population	Number of self-supporting persons	
		Males	Females
1951 . . .	5	12,303	636
1931 . . .	0·3	596	28
1921 . . .	1	1,442	158
1911 . . .	1	1,706	273
1901 . . .	2	3,473	386

52. The decline in the employment of females up to 1931 was due to the decay of the handmade paper industry which flourished up to 1921. The rise in the employment of females in 1951 is accounted for in modern paper mills, where, however, the majority of those that are employed are not natives of West Bengal.

4.9 Printing and Allied Industries

The figures are as follows :

Year	Number of self-supporting persons per 10,000 of total population	Number of self-supporting persons	
		Males	Females
1951 . . .	11	26,512	223
1931 . . .	6	12,099	15
1921 . . .	6	10,745	236
1911 . . .	6	11,756	88
1901 . . .	6	10,892	69

53. In this subdivision women, such as is their strength, are mostly employed in washing and cleaning litho blocks and type. The high figures are an index of the circulation of newspapers and the book trade.

LIVELIHOOD CLASS VI—COMMERCE

(iii) *Division 6—Commerce*

54. The progress of this class has been discussed above. The only Subdivision under Division 6 which has distinctly and considerably improved is 6.0 (Retail trade otherwise unclassified).

6.0 Retail trade otherwise unclassified

Year	Number of self-supporting persons per 10,000 of total population	Number of self-supporting persons	
		Males	Females
1951 . . .	81	195,215	9,168
1931 . . .	17	28,663	5,408
1921 . . .	32	55,699	3,864
1911 . . .	16	27,631	2,690
1901 . . .	39	62,909	8,516

55. This subdivision mainly comprises stationery stores, booths, stalls and small stores selling proprietary medicines and beverages. The sudden steep increase is largely owing to the influx of the Displaced population.

LIVELIHOOD CLASS VII—TRANSPORT

(iv) *Division 7—Transport Storage and Communication*

56. This has been discussed already. The only Subdivision which shows steady and continuous improvement is 7.3 (Transport by Air). Even Subdivision 7.4 (Railway Transport) shows intermittent progress. The figures are as follows:

7.3 Transport by Air

Year	Number of self-supporting persons per 10,000 of total population	Number of self-supporting persons	
		Males	Females
1951 .	2	4,772	102
1931 . .	0·03	51	2
1921 . .	0·01	22	..
1911 . . .	..	..	..
1901 . . .	..	..	..

7.4 Railway transport

Year	Number of self-supporting persons per 10,000 of total population	Number of self-supporting persons	
		Males	Females
1951 . . .	38	92,784	2,281
1931 . . .	12	23,626	765
1921 . . .	17	31,688	275
1911 . . .	30	55,510	1,349
1901 . . .	13	24,973	1,34

57. The increase in the employment of females is an encouraging feature but it has to be remembered at the same time that the majority of women so employed are not natives of West Bengal.

LIVELIHOOD CLASS VIII—OTHER SERVICES AND MISCELLAENOUS SOURCES

58. This Livelihood Class has been discussed at some length above. There have been definite and almost continuous improvements only in the following Divisions and Subdivisions: 5.5 (Works and Services—Electric Power and Gas supply), 7.6 (Postal Services), Division 8 (Health, Education and Public Administration), 9.4 (Hotels, restaurants and eating houses) and 9.5 (Recreation services).

(v) *Division 5—Construction and Utilities*

5.5 Works and Services—Electric Power and Gas supply

The figures are as follows:

Year	Number of self-supporting persons per 10,000 of total population	Number of self-supporting persons	
		Males	Females
1951 . . .	7	16,975	291
1931 . . .	1	1,602	1
1921 . . .	2	2,781	45
1911 . . .	2	2,862	16
1901 . . .	..	..	..

59. The generation of electricity and gas has greatly improved since 1931,

although the overall absolute production is still rudimentary.

(vi) *Division 8—Health, Education and Public Administration*

60. It is heartening to find that employment in every subdivision except 8.5 (Village officers and watchmen) and 8·7 (Employees of State Governments) where improvement has been tardy has greatly improved from 1931. The details will be found in Statements V.2 and V.3. The figures for the division as a whole are given below :

Year	Number of self-supporting persons per 10,000 of total population	Numbr of self-supporting persons	
		Males	Females
1951	116	263,175	23,939
1931	79	146,592	12,094
1921	60	103,490	8,753
1911	61	105,255	12,006
1901	62	103,818	9,670

The increase in the employment of females is noteworthy. The majority of women employed belong to West Bengal.

(vii) *Division 9—Services not elsewhere specified.*

61. This division has been discussed already. The only Subdivision which shows an almost continuous growth is 9.4 (Hotels, restaurants, and eating houses). Subdivision 9·5 (Recreation services) also shows an appreciable though not continuous growth.

9.4 Hotels, restaurants and eating houses

The figures are as follows :

Year	Number of self-supporting persons per 10,000 of total population	Number of self-supporting persons	
		Males	Females
1951	15	36,556	1,895
1931	3	6,212	559
1921	3	5,457	954
1911	2	2,452	388
1901	1	1,360	309

9.5 Recreation services

Year	Number of self-supporting persons per 10,000 of total population	Number of self-supporting persons	
		Males	Females
1951	11	16,779	9,755
1931	4	6,952	561
1921	4	7,284	714
1911	7	13,187	911
1901	25	15,564	29,841

62. The figure for females in 1901 cannot be explained except either by recognising it as spurious or by acknowledging that it was only in 1901 that a fairly correct enumeration of public women, professional dancers and women entertainers was made. It is true that in subsequent censuses the majority of public women returned themselves under some other vocation. It is possible that after 1901 a great many of them started to return themselves as maidservants (see statistics of Subdivision 9.1).

SECTION 4

CONCLUDING REMARKS

63. The statistics discussed in the last section are bound to lead to depressing conclusions. They indicate that the aggregate livelihood of the people has certainly not kept pace with the increase of population and is lagging far behind. This will be very clear if we take the proportions of population of working age 15-55 or 15-50 at each census and compare them with the number of self-supporting persons per 10,000 of total population. The gap is widening more in the rural than in urban areas, proving that a greater and greater proportion of the rural population is being compelled to fall back upon the land and dispute what nourishment and employment it provides. In the urban areas, a big share of the employment and sustenance available are appropriated by persons born outside the State, and there also, except for certain expanding mills and factories, employment is scarce and fiercely disputed. The statistics have already been discussed in Section 6 of Chapter I. In the absence of statistics of previous decades it is not possible to determine how the 'independent worker' has fared *vis-a-vis* the employer and employee. One thing, however, needs to be discussed again in respect of the overall long-range picture it presents and that is the employment of women as self-supporting individuals of society. Such an examination will afford a valuable clue to the understanding of the structure of occupations and the texture of the aggregate of livelihoods in the State, especially in the rural areas, and underline several important shifts that have occurred in the course of the last fifty years. It will also afford an insight into the changes and tensions that have been introduced into the normal rural family in West Bengal, an index of the status of women in society, and the shifting tides in the fortunes of this sex.

We can do nothing better than tabulate in another manner the statistics discussed in the last section.

64. The following statement gives the overall employment of women in the agricultural and non-agricultural classes, that is, the aggregate of all livelihoods for 1901-51.

STATEMENT V.4

Number of self-supporting persons of both sexes per 10,000 of total population and number of self-supporting females in West Bengal, 1901-51

Year	Number of self-supporting persons per 10,000 of total population			Number of self-supporting females		
	Total	Agricultural Classes	Non-Agricultural Classes	Total	Agricultural Classes	Non-Agricultural Classes
1951	3,150	1,489	1,661	1,039,862	430,740	609,122
1931	3,281	1,848	1,433	962,291	342,076	620,215
1921	3,949	2,338	1,611	1,349,764	547,429	802,335
1911	4,112	2,340	1,772	1,464,801	466,256	998,545
1901	3,890	1,983	1,907	1,376,010	314,134	1,061,876

This statement shows how the crisis in employment is gradually intensifying both in the agricultural and non-agricultural sectors, and how an increasing proportion of the population is being thrown upon the earnings of a decreasing number of earners. The position is particularly serious in the matter of employment of women. It shows how increasingly women in greater numbers are passing under the economic subjection of men, how their horizon of employment is closing in from many directions, how the family unit is getting increasingly monolithic and dependent on the principal bread-winner, and how the economic resources of this unit, especially in the village and small town, are gradually narrowing down more or less to one principal livelihood. This dismal feature is not necessarily counterbalanced or relieved by improved production with more economy of labour, either, so that the fall in employment does not in all cases mean improved production at less cost. More correctly, the fall in employment indicates how the aggregate of livelihood is lagging behind the growth of population. And in this race females are being sacrificed and subjected to the domination of males, an appalling economic consequence that is sought to be concealed in an abundance of verbiage about the exalted position of women in society, their sacred trust of bringing up the family, their natural constitution being unsuitable to the rigours of life. It is true that there has been an increase in the employment of women in mills and factories and in administrative and miscellaneous services. But the majority of women in mills and factories do not belong to West Bengal, and their employment therefore does not substantially help in the struggle of that population which belongs by birth to this State. On the other hand women in administrative and miscellaneous services do not primarily produce wealth for immediate consumption and as such at best pay their way instead of producing more of material wealth. It will be interesting to take stock of the more important non-agricultural livelihood subdivisions that show a definite decrease in the employment of women. It will be seen, significantly enough, that these are the very subdivisions which have a smaller proportion of self-supporting persons in them than formerly.

STATEMENT V.5

Important non-agricultural livelihood subdivisions in which employment of women has declined in West Bengal in 1951 from previous decades

Non-Agricultural Livelihood Sub-divisions	Number of self-supporting persons of both sexes per 10,000 of total population					Number of self-supporting females				
	1951	1931	1921	1911	1901	1951	1931	1921	1911	1901
(1) 0.1 Stock Raising . .	10	26	46	105	92	2,566	2,924	3,738	10,427	5,952
(2) 0.2 Rearing of small animals and insects	3	0·3	3	12	..	927	476	2,260	13,816	..
(3) 0.6 Fishing . . .	19	31	38	64	44	6,148	21,488	30,600	58,377	31,338
(4) 2.1 Processing of grains and pulses	45	46	75	119	111	88,141	84,791	127,566	218,048	190,271
(5) 2.2 Vegetable oil and dairy products	5	10	15	11	10	1,232	1,010	4,527	4,371	3,604
(6) 2.6 Cotton textiles . .	31	30	37	44	47	5,270	6,361	15,119	19,894	14,810
(7) 2.7 Wearing apparel (except footwear) and made up textile goods	26	15	18	19	19	2,746	1,517	2,890	5,437	4,107
(8) 4.4 Non-metallic mineral products	12	11	20	20	17	2,789	4,169	11,822	12,474	7,103
(9) 4.6 Wood and wood products other than furniture and fixtures	31	32	44	46	50	5,627	9,347	21,414	30,642	35,324
(10) 6.1 Retail trade in foodstuffs (including beverages and narcotics)	130	63	125	162	169	34,290	38,945	100,350	119,398	121,293
(11) 6.2 Retail trade in fuel (including petrol)	9	3	7	15	14	4,534	1,028	8,833	21,663	18,610
(12) 6.3 Retail trade in textiles and leather goods	23	11	31	37	21	1,147	2,490	7,583	6,440	2,268
(13) 5.2 Construction and maintenance of Roads and Bridges	3	22	19	39	90	928	9,008	11,054	21,847	47,627
(14) 9.0 Services otherwise unclassified	123	275	173	163	350	29,902	93,623	110,941	97,672	136,849
(15) 9.2 Barbers and beauty shops	13	14	18	19	21	2,254	2,558	4,580	7,635	5,607
(16) 9.3 Laundries and Laundry services	11	11	15	17	17	3,078	4,604	8,716	11,385	9,970
(17) 9.8 Religious, Charitable and Welfare Serivces	14	18	21	40	50	2,993	1,894	726	14,178	22,122
TOTAL . .	508	618	705	932	1,122	194,572	286,233	472,719	673,099	656,923

Alternatively, the following statement shows the main non-agricultural subdivisions in which employment of women has improved.

STATEMENT V.6

Important non-agricultural livelihood subdivisions in which employment of women has increased in West Bengal in 1951 from previous decades

Non-Agricultural Livelihood Sub-divisions	Number of self-supporting persons of both sexes per 10,000 of total population					Number of self-supporting females				
	1951	1931	1921	1911	1901	1951	1931	1921	1911	1901
(1) 1.1 Coal mining . . .	46	21	36	34	13	33,717	17,321	29,069	25,013	12,495
(2) 1.5 Stone-quarrying, clay and sand pits	1	..	0·003	..	..	979	..	..	..	..
(3) 3.0 Manufacture of metal products otherwise unclassified	33	16	21	26	6	7,384	871	1,766	1,284	243
(4) 3.1 Iron and Steel (Basic Manufacture)	12	0·9	7	1	14	1,880	7	1,010	25	368
(5) 6.0 Retail trade otherwise unclassified	81	17	32	16	39	9,168	5,408	3,864	2,690	8,516
(6) 8.1 Medical and other Health Services	23	15	13	14	13	10,161	7,598	6,801	9,946	8,319
(7) 8.2 Educational Services and Research	26	13	11	11	13	7,249	1,785	1,551	1,459	1,134
(8) 8.6 Employees of Municipalities and Local Boards	10	5	6	4	3	3,260	210	274	572	115
(9) 9.4 Hotels, restaurants and eating houses	15	3	3	2	1	1,895	559	954	388	309
(10) 9.5 Recreation Services .	11	4	4	7	25	9,755	561	714	911	29,841
TOTAL .	258	95	133	115	127	85,457	34,320	46,003	42,288	61,340

65. Statement V.4 read with Statements V.5 and V.6 tells a fearful story. Not only does it show a declining ratio of self-supporting persons in the aggregate livelihood of the State, and therefore greater dependence of an increasing population on a diminishing number of earners, but it also shows the onset of a serious economic subservience of women, their growing dependence upon men, an increasing contraction in the number of earning units in the average family and its consequent economic fragility or vulnerability, as a result of which if the principal breadwinner dies or is out of employment, the family faces starvation more starkly and certainly today than at any time before. It will appear that for nearly every 100 self-supporting women in 1911 there are in 1951 only 71. That is the measure of decline in the aggregate of all livelihoods, in which agricultural livelihoods contribute slightly less than half, and in which sector the employment of women has not declined so appreciably as in the other sector of non-agricultural livelihoods. In the latter sector the decline is truly fearful. For every 100 self-supporting women in 1911 there are as few as 61 in 1951! In an aggregate of 17 important non-agricultural economic subdivisions there are only 508 self-supporting persons per 10,000 of total population in 1951, compared to 932 in 1911 and 705 in 1921. These 17 subdivisions cover a wide section of the economic life of the community, and in them, the sum of self-supporting women has declined from 673,699 in 1911 to as few as 194,572 in 1951. In other words, for every 100 self-supporting women in 1911 in these 17 subdivisions, there are only 29 women in 1951. Any person would run the risk of ridicule to say it if he did not have the statistics to fortify him. The absolute figures are even more impressive and fearful than the appalling proportions. In the course of forty years the clock of social progress has been put very far back indeed.

66. On the other hand, Statement V.6 fails to present reassuring statistics on the increase in the number of self-supporting women employed in modernly organised industries and services. Not only is the number of economic subdivisions in which an appreciable increase has occurred small, being only 10, but the absolute as well as proportional increases are small compared to the decreases. Only in ten subdivisions has the increase in the employment of women been substantial, that is, dimensionally respectable. The aggregate increase in them has been from 42,288 in 1911 to 85,457 in 1951; or a little more than twice in 40 years. In other words for every 1 self-supporting woman in these 10 subdivisions in 1911 there are now 2. But 42,288 is only 6·3 per cent. of 673,699, and the increase of 43,169 in these 10 subdivisions is only 9 per cent. of 479,127 (673,699−194,572) which is the decline in the employment of women in the other 17 subdivisions. Thus on any showing the increase in this direction is very small compared to the decrease in the other direction, or to the total decrease in the aggregate of all non-agricultural livelihoods. Besides, it has to be remembered that the increase has been effected to a great extent by women born outside West Bengal, while the decline has occurred in the ranks of women who belong to this State.

67. It has been shown in Section 6 of Chapter I (p. 359) how an increasing proportion of persons aged 15-55 remains unemployed since 1901. The extent to which the aggregate livelihood of the people is steadily falling short of the population will also be clear if Statements V.2 and V.3 are read with the age distribution of the population over the fifty-year period set out in Statement I.148 in Chapter I. Suffice here to underline the gap that exists in 1951 between employment and population by quoting the proportion of the sum of self-supporting persons and earning dependants in 1951 and the proportion of the population of age group 15-54 in each livelihood class in the following statement.

STATEMENT V.7

Proportion of self-supporting persons and earning dependants to total population and of the population of the age group 15-54 to total population in each main livelihood class in West Bengal, 1951

	Livelihood Classes							
	I	II	III	IV	V	VI	VII	VIII
Percentage of self-supporting persons to total population in each livelihood class	23·3	25·1	34·1	26·1	43·7	33·5	43·1	36·3
Percentage of earning dependants to total population in each livelihood class	3·7	5·0	4·6	2·3	2·1	1·5	1·2	1·9
Percentage of self-supporting persons and earning dependants to total population in each livelihood class	27·0	30·1	38·7	28·4	45·8	35·0	44·3	38·2
Percentage of population of age group 15-54 to total population in each livelihood class	54·4	55·0	57·7	53·6	60·7	59·2	66·7	60·8

The following statement compares the percentage of all self-supporting persons and earning dependants in all livelihood classes to total population in 1951 with the percentage of population of (a) age group 15-54, and (b) 15-49 to total population of all livelihood classes.

Percentage of earners in 1951 to total population			Percentage of population of age group 15-54 to total population	Percentage of population of age group 15-49 to total population
Total	Self-supporting persons	Earning dependants		
34·7	31·5	3·2	57·4	53·7

68. The diminishing proportion of self-supporting persons, especially among females, in the State's population over the last half-century is conclusively demonstrated in the following statement showing separately for the agricultural and non-agricultural classes the number of self-supporting males and females per 10,000 of the total male and female population respectively at each census from 1901. This dispels any notion that one may entertain that the State now offers a more plentiful proportionate supply of fruitful occupations than formerly.

STATEMENT V.8

Number of self-supporting persons per 10,000 of total, male and female population in the aggregate, agricultural and non-agricultural livelihoods, 1901-51

Year	Number of self-supporting persons per 10,000 of total population in all livelihoods	Number of self-supporting males & females per 10,000 in agricultural livelihoods of male & female population		Number of self-supporting males & females per 10,000 in non-agricultural classes of male & female population	
	Total	M	F	M	F
1951	3,150	2,446	376	2,632	531
1931	3,281	3,118	413	2,126	654
1921	3,949	3,809	705	2,255	897
1911	4,112	3,963	579	2,410	1,081
1901	3,890	3,467	409	2,574	1,200

Such is the picture presented by West Bengal in the middle of the twentieth century. Were it not for the long-term trends it betrays it would hardly give cause for alarm. But unfortunately a steady trend of decline is noticeable in most spheres since 1911. Instead of a steady easing of pressure of population on the land there has been a steady increase. Instead of a steady increase in the proportion of self-supporting persons among the population there has been a noticeable decline. Instead of a steady diversion of the native population to industry, miscellaneous production, commerce, transport, and services there has been a definite contraction of employment in these spheres. There has been a remarkable contraction in the employment of women, making them more dependent upon men, thus making the family economically more vulnerable and less equipped to survive misfortunes. The old means of independent production, the predominating characteristic of Asian economies, are fast giving way to organised industry and commodity production in which the native of the State fails to take his rightful share owing to the background he has inherited from the Permanent Settlement, his devitalised condition caused by malnutrition, disease and malaria, which has raged due to the decreasing fertility of the soil, bad flushing and irrigation, prolonged submarginal living caused by persistent cheese paring of the land and lack of employment in cities and towns which he has eagerly thronged and helped to grow, without drawing adequate sustenance from them. Finally, the apparent improvement in recent decades in the pattern of commodity consumption has contributed to further impoverishment, because most of these commodities are imports or produced with the help of foreign capital, most of which is scraped away and not ploughed back into the country to produce more wealth. It has amounted to living on the fat of the land, bringing about a progressive, if imperceptible, deterioration. It sounds like a paradox that an apparent improvement in the pattern of commodity consumption should spell disaster both in agriculture and industry but this point has already been sufficiently elaborated in earlier chapters of this volume to require fresh treatment at its close.

Comparative Statement of the Economic Classification Schemes

Serial No.	No. of Division and Sub-division	Description—1951	No. of Division and Sub-division	Description—1931	No. of Division and Sub-division	Description—1921	No. of Division and Sub-division	Description—1911
1	0	Primary industries not elsewhere specified.	A. I	Production of raw materials. Exploitation of the animals and vegetation.	A. I	Production of raw materials. Exploitation of the animals and vegetation.	A. I	Production of raw materials. Exploitation of the surface of the earth.
2	0.1	Stock raising. . .	1. d	Stock raising. . .	1. d	Raising of farm stock. .	1. d	Raising of farm stock.
3	0.2	Rearing of small animals and insects.	1. e	Rearing of small animals and insects.	1.e	Rearing of small animals.	1. e	Rearing of small animals.
4	0.3	Plantation industries. .	1. b	Cultivation of special crops, fruits, etc. (Planters, managers, clerks and labourers).	1. b	Growers of special products and market gardening.	1. b	Growers of special products and market gardening.
5	0.4	Forestry and wood-cutting.	1. c	Forestry. . . .	1. c	Forestry. . . .	1. c	Forestry.
6	0.5	Hunting. . . .	2	Fishing and hunting. .	2	Fishing and hunting. .	2	Fishing and hunting.
7	0.6	Fishing. . . .	2	Fishing and hunting. .	2	Fishing and hunting. .	2	Fishing and hunting.
8	1	Mining and Quarrying. .	II	Exploitation of minerals.	II	Exploitation of minerals.	II	Exploitation of minerals.
9	1.0	Non-metallic mining and quarrying not otherwise classified.	II. 4	Non-metallic minerals ..	II. 4	Quarries of hard stock. .	II. 4	Quarries of hard stock.
10	1.1	Coal mining. . .	II. 4	Ditto. . . .	II. 4	Ditto. . . .	II. 4	Ditto.
11	1.2	Iron ore mining. . .	II. 3	Metallic minerals. .	II. 3	Mines. . . .	II. 3	Mines.
12	1.3	Metal mining except iron ore mining.	II. 3	Ditto. . . .	II. 3	Ditto. . . .	II. 3	Ditto.
13	1.4	Crude petroleum and natural gas.	II. 4	Non-metallic minerals. .	II. 3	Ditto. . . .	II. 3	Ditto.
14	1.5	Stone quarrying, clay and sand pits.	II. 4	Ditto. . . .	..	..	..	..
15	1.6	Mica. . . .	II. 4	Ditto. . . .	..	..	..	..
16	1.7	Salt, saltpetre and saline substances.	II. 4	Ditto. . . .	II. 5	Salt, etc. . . .	II. 5	Salt, etc.
17	2	Processing and manufacture.—Foodstuffs, Textiles, Leather and products thereof.	B	Preparation and supply of material substances.	B	Preparation and supply of material substances.	B	Preparation and supply of material substances
18	2.0	Food industries otherwise unclassified.	III.11	Food industries. . .	III.12	Food industries. . .	III. 12	Food industries.
19	2.1	Grains and pulses. .	III.11	Ditto. . . .	III.12	Ditto. . . .	III.12	Ditto.
20	2.2	Vegetable oil and dairy products.	III.11	Ditto. . . .	III.12	Ditto. . . .	III.12	Ditto.
21	2.3	Sugar industries. . .	III.11	Ditto. . . .	III.12	Ditto. . . .	III.12	Ditto.
22	2.4	Beverages. . . .	III.11	Ditto. . . .	III.12	Ditto. . . .	III.12	Ditto.
23	2.5	Tobacco. . . .	III.11	Ditto. . . .	III.12	Ditto. . . .	III.12	Ditto.

FICATION SCHEMES 1872-1951

V.1

in successive Censuses in Bengal, 1872-1951

No. of Division and Sub-division	Description—1901	No. of Division and Sub-division	Description—1891	No. of Division and Sub-division	Description—1881	No. of Division and Sub-division	Description—1872	Serial No.
B. IV	Pasture and Agriculture, Provision and care of animals.	..	..	..		..	..	1
IV.8	Stock breeding and dealing.	B. IV	No. 25—Cattle breeders and dealers. 26—Herdsmen. 31—Sheep and goat breeders and dealers. 32—Pig breeders and dealers.	IV.IX	Persons engaged about animals.	IV	Persons engaged in agriculture and with animals.	2
..	..		..	..	..	..	..	3
V.12	Growers of special products.	V	No. 44—Tea, coffee and cinchona planters and cultivators.	.	..	..	..	4
XV.49	Wood and Bamboos.	XV	Nos. 303-305—Wood-cutters, carpenters, etc.	V.XIV	Persons working and dealing in vegetable substances.	VI	Dealers in vegetable substances.	5
XXI.72	Sport.	XXI	No. 448—Shikaris, falconers, bird-catchers.	..	..	..	..	6
VII.17	Provision of animal food.	..	..	..	..	..	..	7
..	..	..	..	..	..	..	..	8
..	..	..	..	..	..	..	..	9
VIII.21	Fuel and forage. . .	VIII	No. 127—Coal mines, etc.	V.XV	Persons working and dealing in minerals.	VI	Manufacture. . .	10
XIV.46	Iron and steel. . .	XIII	Nos. 290 to 293—Workers in iron and steel.	V.XV	Ditto. . . .	..	..	11
XIII.43	Gold, silver and precious stones.	XIII	Nos. 258 to 260—Gold and silver dealers and workers. 284 to 288—Workers in tin, zinc, mercury and lead.	V.XV	Ditto. . . .	..	..	12
VIII.20	Lighting. . . .	..	..	..	..	VI	Manufacture.	13
IX.22	Building materials. .	..	..	V.XV	Persons working and dealing in minerals.	..	..	14
XI.30	Carving and Engraving..	..	..	..	..	..	..	15
..	..	XVI	No. 326—Saltpetre workers and sellers.	V.XV	Persons working and dealing in minerals.	..	..	16
D.	Preparation and supply of material substances.	..	..	..	..	..	..	17
VI.17	Provision of animal food.	VII	No. 81—Fishermen and fish dealers.	V.XII	Persons working and dealing in food and drink.	VI	Dealers in vegetable food.	18
VII.18	Provision of vegetable food.	VII XXIII	Nos. 83 and 84—Grain dealers and grain Purchasers. No. 466—Rice pounders and huskers.	V.XII	Ditto. . . .	VI	Ditto.	19
I.17	Provision of animal food.	VIII	No. 116 and 117—Oil pressers and sellers.	V.XII	Persons working and dealing in food and drink.	VI	Dealers in animal food.	20
II.18	Provision of vegetable food.	VII	No. 103 and 104—Sugar and molasses makers and sellers.	V.XII	Ditto. . . .	VI	Dealers in vegetable food.	21
II.19	Provision of drink, condiments and stimulants.	VII	No. 97—Country spirit distillers and sellers. 98—Toddy drawers and sellers.	V.XII	Ditto . . .	VI	Dealers in drink.	22
II.19	Ditto.	VII	No. 112—Tobacco and snuff manufacturers and sellers.	V.XII	Ditto. . . .	V	Dealers in stimulants.	23

CENSUS ECONOMIC CLASSI

STATEMENT

Serial No.	No. of Division and Sub-division	Description—195	No. of Division and Sub-division	Description—1931	No. of Division and Sub-division	Description—1921	No. of Division and Sub-division	Description—1911
24	2.6	Cotton textiles.	III.5	Textiles.	III.6	Textiles.	III.6	Textiles.
25	2.7	Wearing apparel (except footwear) and made up textile goods.	III.5	Textiles	III.6	Textiles.	III.6	Textiles.
26	2.8	Textile Industries otherwise unclassified.	III.5	Ditto	III.6	Ditto.	III.6	Ditto.
27	2.9	Leather, leather products and footwear.	III.6	Hides, skins and hard materials from the animal kingdom.	III.7	Hides, skins and hard materials from the animal kingdom.	III.7	Hides, skins and hard materials from the animal kingdom.
28	3	Processing and manufacture—metals, chemicals and products thereof.	III.8 III.10 III.15	Metals. Chemical products properly so called and analogous. Construction of means of transport.	III.9 III.11 III.16	Metals. Chemical products properly so called and analogous. Construction of means of transport.	III.9 III.11 III.16	Metals. Chemical products properly so called and Construction of means of transport.
29	3.0	Manufacture of metal products otherwise unclassified.	III.8	Metals.	III.9	Metals.	III.9	Metals.
30	3.1	Iron and Steel (Basic manufacture).	III.8	Ditto.	III.9	Ditto.	III.9	Ditto.
31	3.2	Non-Ferrous Metals (Basic manufacture).	III.8	Ditto.	III.9	Ditto.	III.9	Ditto.
32	3.3	Transport Equipment.	III.15	Construction of means of transport.	III.16	Construction of means of transport.	III.16	Construction of means of transport.
33	3.4	Electrical machinery, apparatus, appliances and supplies.	..					
34	3.5	Machinery (other than electrical machinery) including Engineering Workshops.	III.8	Metals.	III.9	Metals.	III.9	Metals.
35	3.6	Basic Industrial Chemicals, Fertiliser and Power Alcohol.	III.10	Chemical products properly so called and analogous.	III.11	Chemical products properly so called and analogous.	III.11	products pro- so called and
36	3.7	Medical and Pharmaceutical Preparations.	..	..	..	..	..	
37	3.8	Manufacture of chemical products otherwise unclassified.	III.10	Chemical products properly so called and analogous.	III.11	Chemical products properly so called and analogous.	III.11	Chemical products pro- so called and
38	4	Processing and Manufacture—Not elsewhere specified.	..					
39	4.0	Manufacturing Industries otherwise unclassified.	III.17	Miscellaneous and undefined industries.	III.18	Other miscellaneous undefined industries.	III.18	Industries of luxury and those pertaining to literature and the arts and sciences.

V.1—contd.

No. of Division and Sub-division	Description—1901	No. of Division and Sub-division	Description—1891	No. of Division and Sub-division	Description—1881	No. of Division and Sub-division	Description—1872	Serial No.
XII.40	Cotton.	XII	Nos. 231 and 231A—Cotton cleaners and raw cotton dealers. 233—Cotton spinners, mixers, yarn and beaters. 234—Cotton weavers, mill owners, and managers. 237—Cotton dyers.	V.XI	Persons working and dealing in textiles, fabrics and industries.	VI	Miscellaneous artisans.	24
XII. 40, 42	Cotton dress.	XII	No. 244—Net makers and sellers. 247—Tailors and dressers.	V. XI	Ditto.	VI	Ditto.	25
XII.38, 39, 41	Wool and fur (38); Silk (39); Jute, hemp, flax and coir, etc. (41).	XII	Nos. 220 and 221—Blanket and woollen cloth manufacturers and sellers. 226—Silk-worm rearers and cocoon gatherers. 227 and 228—Silk carders, weavers, spinners nd dealers. 242—Jute manufacturers, managers and agents.	V. XI	Ditto.	VI	Ditto.	26
XVII.53	Leather, Horns and Bones.	XVII	No. 338—Tanners, curriers and hide sellers. 339—Shoe, sandals, hook makers and sellers.	V.XIII	Persons working and dealing in animal substances.	VI	Ditto.	27
..	..	..	..	..	..	..	..	28
XIII.44	Brass, Copper and Bell-metal.	XI	Nos. 209 to 211—Gun, ammunition, gunpowder, etc., makers and sellers. 276 to 283—Workers in brass, copper and Bell-metal.	V.XV	Persons working and dealing in minerals.	VI	Miscellaneous artisans.	29
XIII.46	Iron and Steel.	..	..	V.XV	Ditto.	..		30
..	..	XIII	Nos. 290 to 293—Workers in Iron and Steel.	..	..	..	..	31
X.25	Carts, carriages, etc.	X	No. 148—Shipwrights, boat builders, etc.	V.X	Persons engaged in art and machine products.	VI	Constructive art.	32
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XI.36	Tools and machinery.	XI	No. 207—Mechanics (not railway).	V.XV	Persons working and dealing in minerals.	..	..	34
	..	..	..	..	..	VI	Dealers in perfumes, drugs, medicine, etc.	35
..	..	..	..	..	..	..	..	36
VIII.20	Lighting.	..	..	V.XV	Persons engaged in art and machine products.	VI	Dealers in perfumes, drugs, medicine, etc.	37
..	..	..	..	..	..	..	..	38
XI.29,31	Watches, clocks and scientific instruments, Toys and curiosities (31).	XI	No. 154—Stationers. 163—Watch and clock makers and sellers. 184—Conch dealers, drum and horn makers.	V.X V.XIII	Persons engaged in art and machine production. Persons working and dealing in animal substances.	VI VI	Miscellaneous artisans Constructive art.	39

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40	4.1	Products of Petroleum and coal.	..	..	..	..	..	..
41	4.2	Bricks, tiles and other structural Clay products.	III.9	Ceramics.	III.10	Ceramics.	III.10	Ceramics.
42	4.3	Cement, Cement pipes and other cement products.	III.14	Building industries.	III.15	Building industries.	III.15	Building industries.
43	4.4	Non-metallic mineral products.	III.9	Ceramics.	III.10	Ceramics.	III.10	Ceramics.
44	4.5	Rubber products.	..	..	..	..	..	..
45	4.6	Wood and wood products other than furniture and fixtures.	III.7	Wood.	III.8	Wood.	III.8	Wood.
46	4.7	Furniture and fixtures.	III.13	Furniture industries.	III.14	Furniture industries.	III.14	Furniture industries.
47	4.8	Paper and paper products.	..	..	..	..	..	..
48	4.9	Printing and Allied Industries.	III.17	Miscellaneous and undefined industries.	III.18	Other miscellaneous and undefined industries.	III.18	Industries of luxury and those pertaining to literature and the arts and sciences.
49	5	Construction and Utilities.	..	..	..	..	..	..
50	5.0	Construction and maintenance of works—otherwise unclassified.	..	..	..	..	..	..
51	5.1	Construction and maintenance—Buildings.	III.14	Building industries.	III.15	Building industries.	III.15	Building industries
52	5.2	Construction and maintenance—Roads, Bridges and other Transport Works.	IV.20	Transport by road.	..	..	..	
53	5.3	Construction and Maintenance—Telegraph and Telephone Lines.	IV.22	Post office, telegraph and telephone services.	IV.23	Post office, telegraph and telephone services.	IV.23	Post office, telegraph and telephone services.
54	5.4	Construction and Maintenance operations—Irrigation and other agricultural works.	..	..	..	..	..	..
55	5.5	Works and Services—Electric Power and Gas supply.	III.16	Production and transmission of physical force.	III.17	Production and transmission of physical force (Heat, light, electricity, motive power).	III.17	Production and transmission of physical force (Heat, light, electricity, motive power).
56	5.6	Works and Services—Domestic and Industrial water supply.	..	..	..	..	..	..
57	5.7	Sanitary Works and Services—Including scavengers.	III.17	Miscellaneous and undefined industries.	III.18	Other Miscellaneous and undefined industries.	III.18	Other miscellaneous and undefined industries.
58	7.5	Storage and warehousing.	XI.52	General term which does not indicate a definite occupation.	XI.53	General term which does not indicate a definite occupation.	XI.53	Insufficiently described occupation.
59	7.6	Postal services.	IV.22	Post office, telegraph and telephone services.	IV.23	Post office, telegraph and telephone services.	IV.23	Post office, telegraph and telephone services.
60	7.7	Telegraph Services.	IV.22	Ditto.	IV.23	Ditto.	IV.23	Ditto.
61	7.8	Telephone Services.	IV.22	Ditto.	IV.23	Ditto.	IV.23	Ditto.
62	7.9	Wireless Services.	IV.22	Ditto.	IV.23	Ditto.	IV.23	Ditto.
63	6	Commerce.	V	Trade.	V	Trade.	V	Trade.
64	6.0	Retail trade otherwise unclassified	V.38 V.39	Trade in articles. Trade of other sorts.	V.30 V.40	Trade in articles, etc. Trade of other sorts.	V.39 V.41	Trade in articles, etc. Trade of other sorts.
65	6.1	Retail trade in foodstuffs (including beverages and narcotics).	V.31 V.32	Hotels, cafes, restaurants, etc. Other trade in foodstuff.	V.32 V.33	Hotels, cafes, restaurants, etc. Other trade in foodstuff.	V.32 V.33	Hotels, cafes, restaurants, etc. Other trade in foodstuffs.

V.1—contd.

No. of Division and Sub-division	Description—1901	No. of Division and Sub-division	Description—1891	No. of Division and Sub-division	Description—1881	No. of Division and Sub-division	Description—1872	Serial No.
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IX.22	Building industries.	IX	Brick and tile burners and sellers.	..	..	..	..	41
IX.22	Ditto.	..	..	..	..	..	..	42
XV.48	Earthen and Stoneware.	IV, XI, XIV	No. 133—Lime and shell burners and sellers. 185-189—Bangle makers and sellers. 192-194—Bead, rosary, necklace and flower garland makers and sellers. 298—Potters and pot and pipe-bowl makers and sellers.	V, XV	Persons working and dealing in minerals.	VI	Miscellaneous artisans.	43
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..	..	..	..	..	..	VI	Construction art.	45
XI.34	Furniture.	..	..	V, X	Persons engaged in art and machine production.	..	..	46
XI.27	Paper.	..	..	..	..	..	..	47
XI.28	Books and Prints.	XI	No. 157—Press, Proprietors, lithographers and printers. 158—Book-binders.	V, X	Persons engaged in art and machine production.	VI	Miscellaneous artisans.	48
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IX.23	Artificers in building.	IX	No. 138—Masons.	..	..	..		51
XXII.74	Earthwork, etc.	..	..	..	..	..	..	52
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VI.16	Sanitation.	VI	No. 74—Sweepers and Scavengers.	..	..	..	..	57
XIX.62	Storage and weighing.	XIX	No. 390—Weighmen and measurers.	III, VII	Persons engaged in conveyance of men, animals, food and messages.	V	Conveyance of persons and goods.	58
XIX.61	Messages.	XIX	No. 390—Postal directors, postmasters and clerks.	..	..	V	Ditto.	59
			391—Postal messengers, runners, etc.	..	..	V	Ditto.	
XIX.61	Ditto.	..	..	..	..	..	..	60
XIX.61	Ditto.	..	..	..	..	..	..	61
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XI.28	Books and prints.	XI	No. 154—Stationers. 159—Book-sellers and publishers.	V, X	Persons engaged in art and in machine products.	..	..	64
VII.17 VII.19	Provision of animal food. Provision of drink, condiment and stimulant.	VII	No. 76—Cow-keepers and milk-sellers. 83—Grain dealers. 114 and 115—Opium, bhang, ganja, etc., preparers and sellers.	V, XII	Persons working and dealing in food and drink.	V	Keeping and lending money and sale of goods.	65

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Serial No.	No. of Division and Sub-division	Description—1951	No. of Division and Sub-division	Description—1931	No. of Division and Sub-division	Description—1921	No. of Division and Sub-division	Description—1911
66	6.2	Retail trade in fuel (including petrol).	V.37	Trade in fuel.	V.38	Trade in fuel.	V.38	Trade in fuel.
67	6.3	Retail trade in textile and leather goods.	V.25 V.26	Trade in textiles. Trade in skins, leathers and furs.	V.26 V.27	Trade in textiles. Trade in skins, leathers and furs.	V.26 V.27	Trade in textiles. Trade in skins, leathers and furs.
68	6.4	Wholesale trade in foodstuffs.	V.32	Other trade in foodstuff.	V.33	Other trade in foodstuff.	V.33	Other trade in foodstuff.
69	6.5	Wholesale trade in commodities other than foodstuffs.	..	..	..	..	..	..
70	6.6	Real Estate.	..	..	..	..	..	..
71	6.7	Insurance.	V.23	Banks, establishment of credit, exchange and insurance.	V.24	Banks, establishment of credit, exchange and insurance.	V.24	Banks, establishment of credit, exchange and insurance.
72	6.8	Money lending, banking and other financial business.	V.23 V.24	Ditto. Brokerage, commission and export.	V.24 V.25	Ditto. Brokerage, commission and export.	V.24 V.25	Ditto. Brokerage, commission and export.
73	7	Transport, Storage and Communications.	IV	Transport.	IV	Transport.	IV	Transport.
74	7.0	Transport and communications otherwise unclassified and incidental services.	..	..	..	..	..	..
75	7.1	Transport by road.	IV.20	Transport by road.	IV.21	Transport by road.	IV.21	Transport by road.
76	7.2	Transport by water.	IV.19	Transport by water.	IV.20	Transport by water.	IV.20	Transport by water.
77	7.3	Transport by Air.	IV.18	Transport by Air.	IV.19	Transport by Air.	..	..
78	7.4	Railway transport.	IV.21	Transport by rail.	IV.22	Transport by rail.	IV.22	Transport by rail.
79	8	Health, Education and Public Administration.	C	Public administration and liberal arts.	C	Public administration and liberal arts.	C	Public administration and liberal arts.
80	8.1	Medical and other Health Services.	VIII.47	Medicine.	VIII.48	Medicine.	VIII.48	Medicine.
81	8.2	Educational Services and Research.	VIII.48	Instruction.	VIII.49	Instruction.	VIII.49	Instruction.
82	8.3	Army, Navy and Air Force.	VI.40, 41, 42	Army, Navy and Air Force.	VI.41, 42, 43	Army, Navy and Air Force.	VI.42, 43	Army, Navy.
83	8.4	Police (other than village watchmen).	VI.43	Police.	VI.44	Police.	VI.44	Police.
84	8.5	Village Officers and servants, including village watchmen.	VI.43	Ditto.	VI.14	Ditto.	VI.44	Ditto.

V.1—contd.

No. of Division and Sub-division	Description—1901	No. of Division and Sub-division	Description—1891	No. of Division and Sub-division	Description—1881	No. of Division and Sub-division	Description—1872	Serial No.
VIII.20, 21	Lighting, fuel and forage.	VIII	Nos. 125 and 126—Fire wood and grass gatherers. No. 130—Cow-dung-fuel preparers and sellers.	..	..	VI	Dealers in vegetable substances.	66
XII.38, 39, 40 XVII.53	Wool and Fur, silk and Cotton. Leathers, horn and bones.	XII XVII	No. 257—Piecegood dealers. 338—Tanners, curriers and hide sellers.	V, XI	Persons working and dealing in textiles and fabrics and in dress.	VI	Miscellaneous artisans.	67
VII.19	Provision of drink, condiments and stimulants.	VII	No. 83—Grain dealers. Nos. 103 and 204—Sugar and molasses makers and sellers. No. 112—Tobacco and snuff manufacturers and sellers. Nos. 114 and 115—Opium, bhang, ganja, etc., preparers and sellers.	V, XII	Persons working and dealing in food and drink.	VI	Dealers in vegetable food.	68
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XVIII.54	Money and securities.	..	..	III, VI	Persons who buy or sell, keep or lend money, houses or goods of various kinds.	..	..	71
XVIII	Ditto.	XVIII	Nos. 346 and 347—Bankers, money-lenders and power brokers, etc. No. 350—Money-changers and testers.	III, VI	Ditto.	V	Keeping and lending money and sale of goods.	72
XIX	Transport and storage.	..	..	III, VII	Persons engaged in the conveyance of men, animals, goods and messages.	..	..	73
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XIX.59	Road.	XIX	No. 375—Cart owners and drivers, carting agent. 378—Palki owners, bearers, etc. 379—Pack-bullock owners, drivers, etc.	III, VII	Ditto.	V	Conveyance of persons and goods.	75
XIX.60	Water.	XIX	No. 383—Boat and barge owners, etc. 384—Ships officers, engineers, mariners, and firemen. 385—Boat and bargemen.	III, VII	Persons engaged in the conveyance of men, animals, goods and messages.	V	Conveyance of persons and goods.	76
..	..	..	..		..	..	..	77
XIX.58	Railway.	..	..	III, VII	Persons engaged in the conveyance of men, animals, goods and messages.	V	Conveyance of persons and goods.	78
A	Government.	..	..	I	Professional class.	..	..	79
XX.67	Medicine.	XX	No. 421—Practitioners by diploma. 422—Practitioners without diploma (baid, hakim, Kaviraj). 426—Midwifery.	I, III	Persons engaged in the learned professions or in literature, art and science (with their immediate subordinates).	II	Medicine.	80
XX.64	Education.	XX	No. 407—Principals, professors, teachers in colleges, in schools. etc.,	I, III	Ditto.	II	Education.	81
VI.4, 5	Army, Navy and marine.	..	..	I, II	Persons engaged in defence of the country.	I	Persons employed under Government or municipal or other local authorities.	82
I.1	Civil service of the State.	A.I	No. 4—Messengers, constables, etc.	..	..	I	Ditto.	83
I.2	Village service.	A.I	No. 9—Village accountants. 11—Watchmen.	..	..	I	Ditto.	84

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85	8.6	Employees of Municipalities and Local Boards.	VII.44	Public administration.	VII.45	Public administration.	VII.45	Public administration.
86	8.7	Employees of State Governments.	VII.44	Ditto.	VII.45	Ditto.	VII.45	Ditto.
87	8.8	Employees of the Union Government.	VII.44	Ditto.	VII.45	Ditto.	VII.45	Ditto.
88	8.9	Employees of non-Indian Governments.	VII.44	Ditto.	VII.45	Ditto.	VII.45	Ditto.
89	9	Services not elsewhere specified.	VIII D	Professions and liberal arts. Miscellaneous.	VIII D	Professions and liberal arts. Miscellaneous.	VIII D	Professions and liberal arts. Miscellaneous.
90	9.0	Services otherwise unclassified.	..	..	..	..	..	..
91	9.1	Domestic service, etc.	X.51	Domestic service.	X.52	Domestic service.	X.52	Domestic service.
92	9.2	Barbers and beauty shops.	III.12	Industries of dress and toilet.	III.13	Industries of dress and toilet.	III.13	Industries of dress and toilet.
93	9.3	Laundries and Laundry services.	III.12	Ditto.	III.13	Ditto.	III.13	Ditto.
94	9.4	Hotels, restaurants and eating houses.	V.31	Hotels, cafes, restaurants, etc.	V.32	Hotels, cafes and restaurants.	V.32	Hotels, cafes, restaurants, etc.
95	9.5	Recreation services.	VIII.49	Letters, arts and services.	VIII.50	Letters, arts and services.	VIII.50	Letters, arts and services.
96	9.6	Legal and business services.	VIII.49, 46.	Letters, arts and services, Law.	VIII.50, 47.	Letters, art and services, Law.	VIII.50, 47.	Letters, art and services, Law.
97	9.7	Arts, letters and journalism.	VIII.49	Ditto.	VIII.50	Ditto.	VIII.50	Ditto.
98	9.8	Religious, Charitable and Welfare Services.	VIII.45	Religion.	VIII.46	Religions.	VIII.46	Religion.

V.1—concld.

No. of Division and Sub-division	Description—1901	No. of Division and Sub-division	Description—1891	No. of Division and Sub-division	Description—1881	No. of Division and Sub-division	Description—1872	Serial No.
I.2	Service of local and municipal bodies.	..	..	I. I	Persons engaged in the general or local Government of the country.	I	Persons employed under Government or Municipal or other local authorities.	85
I.2	Civil Service of the State.	A.I	No. 2—Officers. 3—Office Superintendents and clerical establishments.	I.I	Ditto.	I	Ditto.	86
I.1	Ditto.	A.I	Ditto.	I.I	Ditto.	1	Ditto.	87
I.1	Ditto.	..	..	I.I	Ditto.	I	Ditto.	88
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VI.14	Personal and domestic service.	VI	No. 65—Cooks. 66—Indoor servants. 67—Grooms, coachmen. 68—Door keepers.	II.V	Persons engaged in entertaining and performing personal offices for males.	III	Domestic.	91
VI.14	Ditto.	VI	No. 59—Barbers.	..	..	III	Other than domestic.	92
..	..	VI	No. 63—Washerman.	..	..	..	..	93
VI.15	Non-domestic establishment.	..	..	II.V	Persons engaged in entertaining and performing personal offices for males.	III	Inn-keepers, etc.	94
XX.71	Music, acting, dancing, etc.	XX XXI	No. 446—Actors, singers and dancers and their accompanists. 456—Conjurors, and fortune tellers. 457—Tumblers, acrobats, etc. 450—Exhibitors of trained animals (bulls, bears, snakes, monkeys, etc.).	I.III	Persons engaged in the learned professions or in literature, art and science, etc.	II	Fine Arts.	95
XX.66, 68	Law, Engineering and Survey.	XX	Nos. 411, 412—Private Secretaries, clerks, public scribes and copyists. 414—Barristers, Advocates and Pleaders. 415 and 416—Solicitors, Attorneys, Law Agents and Mukhtears. No. 417—Articled Clerks and other lawyer's clerks.	I.III	Ditto.	II	Law.	96
XX.65	Literature.	..	..	I.III	Ditto.	II	Literature.	97
XX 63	Religion.	XX	No. 401—Priests, Ministers, preachers, missionaries, etc. 404—Religious-mendicants, inmates of monasteries, convents. 405—Church, temples, musjid, pagoda, ghat, burial, or burning ground service.	I.III	Ditto.	II	Religion.	98

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Presidency Book Supplies, 8-C, Pycrofts Road, Opposite Victoria Hostel, Triplicane.
Supdt., Government Press, Mount Road.
Varadachary & Co., Messrs. P.

MANGALORE—
U. R. Shenoy & Sons, Car Street.

MEERUT CANTT.—
Mr. Dharam Prakash, B.Sc.

MEERUT CITY—
Prakash Educations Stores, Near Tehsil.
University Book Depôt, Near Tehsil.

MYSORE—
J. Nanumal & Sons, Lansdowne Building.

NAGPUR—
Supdt., Government Printing, Central Provinces.

NEW DELHI—
Amrit Book Co., Connaught Circus.
Bhavnani & Sons, Connaught Place.
Bodh Raj Marwah, Shop No. 65, Pussa Road Market, Karol Bagh.
Chifton & Co., Original Road, Karol Bagh.
Empire Book Depôt, 278, Aliganj, Lodi Road.
English Book Store, G-Block, Connaught Circus.
Faqir Chand Marwah & Sons, No. 1-A, Regal Building, Connaught Circus.
Harikishan Das Bedi, R.S. 22, Annexe Feroze Shah Road.
J. Ray & Sons (India), Ltd., 2, Regal Building.
Jain Book Agency, Connaught Place.
Jayna Book Depôt, Chapparwala Kuan, Karol Bagh.
Oxford Book & Stationery Coy., Scindia House.
Ram Krishna & Sons (of Lahore), 13/13, Connaught Place.
Saraswati Book Depot, 15, Lady Hardinge Road.
[illegible] Publishing House, Ltd., 7-C, Connaught Place.

PATIALA—
Jainco, Booksellers, etc., Bazar Shaha Nashin.

PATNA—
[illegible] & Sons, Pirmohani, P. O. Kadam Kuan.
Supdt., Government Printing, Bihar, P. O. Gulzar Bagh.

PATNA CITY—
*Hindi Pustak Agency.
Lakshmi Trading Co., Padri-ki-Haveli.
Raghunath Parshad & Sons.

POONA—
Deccan Book Stall, Fergusson College Road.
Express Book Service, East Street.
International Book Service, Deccan Gymkhana.

PUDUKKOTTAI—
P. N. Swaminathan Sivam & Co., Perumal Vilas, Bazar Street.

RAJKOT—
Mohan Lal Dosabhai Shah.

RANCHI—
Ideal Book Store, Near Paristhan Theatre, Main Road.

ROORKEE—
Cambridge Book Depôt.

SHILLONG—
Supdt., Assam Secretariat Press.

SIMLA—
J. Ray & Sons (India), Ltd.
Azad Kitab Mahal, Stall No. 13.
Minerva Book Shop, Regal Cinema Building.
Sunder Das & Sons, 141, Lower Bazar.

SIROHI—
National Trading Co.

SURAT—
Sree Gajan Pustakalaya, Tower Road.

TRICHINOPOLY FORT—
Krishna Swami & Co., Messrs. S., Teppakulam.

TRIVANDRUM—
International Book House, 33, Valia Chalai.

UDAIPUR—
Mewar Book Depôt.

UJJAIN—
*Manakchand Book Depôt, Patni Bazar.

VELLORE—
Venkatasubban, Mr. S., Law Bookseller.

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*For Hindi Publications only.